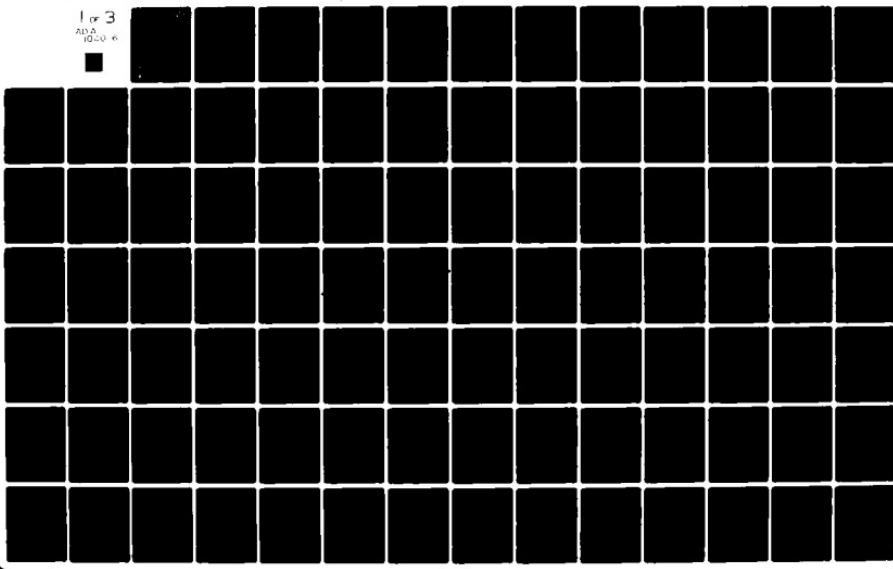


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DEFENSE ENERGY INFORMATION SYSTEM (DEIS): DEIS-80 DESIGN SYSTEM—ETC(U)  
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DEFENSE ENERGY INFORMATION SYSTEM (DEIS):  
DEIS-80 DESIGN SYSTEM SPECIFICATION.

REVISION A

July 1981

Joan Lengel

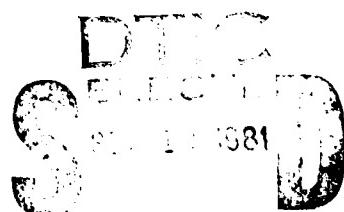
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## PREFACE

The Defense Energy Information System (DEIS) is an automated system used by the Department of Defense to monitor its supplies and consumption of energy. During 1978-80, DEIS-80, an improved DEIS, was developed: a System Specification was published in August 1980. Since that date, several design features have been identified that require clarification and modification, thus, this Revision A.

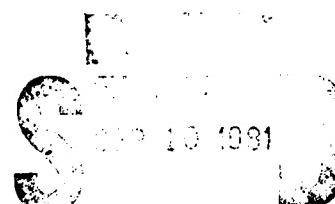
The functions of DEIS-80 are described in this System Specification. DEIS-80 contains two subsystems. The DEIS I subsystem processes data for, and reports on, inventories, acquisition and consumption of petroleum products within DoD. The DEIS II subsystem processes data for, and reports on, the inventories (where appropriate), consumption, and conservation of utility energy within DoD.

DEIS-80 will provide data base management capabilities for energy management throughout the DoD. The system will be used by the Defense Energy Policy Office to improve management of DoD energy resources. Periodic DEIS-80 output reports will be provided to the Military Services for their internal energy management purposes and distribution to major commands and their installations.

In this latest version of the System Specification, revised pages are identified by Rev. A (indicating Revision A) in the lower right-hand corner of each page containing any change from the original specification. A bar on the right-hand margin indicates where changes have been made. New Appendix E is identified by New A in the lower right-hand corner of each page.

This specification adheres to the requirements of DoD Standard 7935.1-S,  
"Automated Data Systems Documentation Standards," (Comptroller), September  
1977.

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## SECTION 1. GENERAL

### 1.1 Purpose of the System Specification

The System Specification for the Defense Energy Information System (DEIS): DEIS-80 Design is written for the Office of the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics (OASD(MRA&L)), to fulfill the following objectives:

- a. To provide detailed definition of the system functions.
- b. To communicate details of the on-going analysis between the user's operational personnel and the appropriate development personnel.
- c. To define in detail the interfaces with other systems and subsystems and the facilities to be utilized for accomplishing the interface.

#### 1.1.1 Purpose and Scope

The purpose of this System Specification (SS) is to specify the DEIS-80 system design. It is written using the "Automated Data Systems Documentation Standards," Department of Defense (OASD-Comptroller), 7935.1-S, September 1977, as a guideline and contains the following sections.

- Section 1--General Information: This section provides an introduction to DEIS, its subsystems DEIS I and II, the current operational environment, and reference documents.
- Section 2--Summary of Requirements: This section presents a general description of DEIS-80 and specifies how its functions satisfy the operational requirements goals. This section also specifies system performance in the areas of accuracy and validity of data, scheduling and timing, and system flexibility.
- Section 3--DEIS-80 Environment: This function describes the equipment, support software, and system interfaces which comprise the DEIS-80 environment.
- Section 4--DEIS I Design Details: This section specifies the DEIS I subsystem of DEIS-80. The specification includes subsystem functional capabilities, design approach and logic flow, processing required to support each function, definition of the inputs and outputs for each function, and the computer program flow of each function.
- Section 5--DEIS II Design Details: This section specifies the DEIS II subsystem of DEIS-80, in the manner described above for DEIS I.
- Appendix A--DEIS I Data Dictionary: This appendix provides a data element dictionary for all items specified as part of the DEIS I data base.

Rev. A

- Appendix B--DEIS II Data Dictionary: This appendix provides a data element dictionary for all items specified as part of the DEIS II data base.
- Appendix C--DEIS Data Collection Card Formats: This appendix contains the card columns and data items on each of the DEIS data input cards.

### 1.1.2 DEIS Functions and Capabilities

The primary objective of DEIS-80 is to improve current procedures and data availability in order to provide more timely, accurate, and flexible service to system users.

DEIS is composed of two major independent subsystems which are carried over from the existing DEIS; DEIS I and DEIS II.

#### 1.1.2.1 DEIS I Subsystem

DEIS I reports the acquisition, inventory, disposition, and consumption of petroleum products such as aviation gasoline, jet fuels, motor gasolines, distillate, and residual oil within DoD. DEIS I software capabilities include the initial sort and edit of input data, loading and maintenance of the DEIS I data base, loading and maintenance of DEIS I header information and tables, identification of changes in reporting activity status, production of standard reports, and the capability for receiving ad hoc reports.

The modified DEIS I subsystem provides all the capabilities of the existing DEIS I. In addition, it incorporates new petroleum products and, through its DBMS, the flexibility to add new data elements (by reorganizing the data base) and produce new reports without major program modifications.

#### 1.1.2.2 DEIS II Subsystem

DEIS II reports the consumption of utility energy products, such as electricity, natural gas, purchased steam/hot water, fuel oil, coal, solar/thermal power, and wind power. This subsystem also reports environmental data such as degree days during a reporting period, size of buildings in use, and the type of activity (such as storage or housing) for which the buildings are used. DEIS II software capabilities include the initial sort and edit of input data, unit conversions where required, loading and maintenance of the DEIS II data base, loading and maintenance of DEIS II header information and tables, extraction of changes in reporting activity status, production of standard reports, and the capability for receiving ad hoc reports.

The modified DEIS II subsystem provides all the capabilities of the existing DEIS II. In addition, it incorporates several new products and environmental data. Through the use of a DBMS, DEIS II provides the flexibility to add other data elements and produce new reports without major program modifications.

### 1.1.3 Current DEIS Organizations

DEIS-80 is designed to function within the current data collection and reporting system, although the data processing system will be new. This subsection describes the current DEIS environment; however, some efforts are underway to make short-term improvements in the timeliness and accuracy of DEIS reporting, as well as in the collection of new data elements.

DEIS depends on input from over 1,400 military bases and facilities, naval vessels, and DoD agencies. Some locations report both DEIS I and DEIS II data, while others may only need to report data in one subsystem. The data are transmitted monthly to the Defense Logistics Agency (DLA) computer center at Cameron Station, Alexandria, Virginia, via AUTODIN or DoD's message communication system. The data are input, sorted, and used to produce DEIS I and DEIS II monthly and quarterly reports and are then retained on tapes (historical data exist from fiscal year 1975). DEIS output reports are distributed to major commands in the Military Services, the reporting DoD agencies, and to various offices in DoD that perform energy-management related functions.

The Air Force Data Services Center (AFDSC) will provide programming, implementation, and operational support for the DEIS-80 functions in this System Specification. DLA will continue to provide data collection, printing, and distribution support.

DEIS reports reflect inventory data, how energy sources are utilized, and how products are issued from an activity either for bulk transfer or for consumption. The reports are currently used for supply management, energy conservation management, energy policy analysis, readiness assessment, and research and development. The Defense Energy Policy Office under the Deputy Assistant Secretary of Defense (DASD) for Energy, Environment, and Safety (EES) has overall project management responsibility for DEIS. The Defense Energy Data Analysis Panel (DEDAP) includes the Services and provides a forum for discussion of energy management information (DEIS) needs.

### 1.1.4 Existing Methods and Procedures

Current data reporting procedures vary between and within the Services. Each Service delegates data collection responsibility and accountability and provides automated support in the way it considers best. The following paragraphs present a general description of the activities in the existing system, including data sources and input methodologies, output reports and automated processing. More complete documentation can be found in "Defense Energy Information System (DEIS): Current System Documentation," Logistics Management Institute, ML917, March 1980.

#### 1.1.4.1 DEIS Data Sources

DEIS I and II data are collected, coded, and reported to DLA from over 1,400 military bases and facilities, ships, and DoD agencies that use energy. Utility energy for facilities leased or managed by other Federal agencies is not included in DEIS.

The Petroleum Oil and Lubricants Officer, the Fuels Officer, the Supply Officer, or the Engineering Officer on the base or facility consolidate inventory and usage data for all petroleum products used. A base or facility's engineering or public works office is usually responsible for collecting and reporting utility inventory and usage data. Data are usually consolidated and reported for each base or facility even if several commands are represented on the base.

#### 1.1.4.2 Input Methodologies and Data Flow

All data are transmitted in an 80-column punched card format. DEIS I requires three card formats for each petroleum product reported; DEIS II requires one card for each utility product. The majority of those reporting DEIS data submit data monthly to the DLA computer center using AUTODIN-I or the standard message form (DD Form 173). There are several major exceptions, as follows:

- a) DEIS I data collected by the Air Force are included in their stock fund system and reported to DLA after accounting reconciliations have been made.
- b) DEIS data for Army bases under FORSCOM and TRADOC flow through command headquarters.
- c) DEIS II data are reported monthly by Army bases and facilities. These data were reported quarterly prior to October 1980.
- d) National Guard headquarters receive and review DEIS data from their activities before transmitting the data to DLA.
- e) Ships at sea report by ship-to-shore communications to an on-shore station. These data are then transmitted in the same manner as the station's reports.
- f) A few activities do not have access to a communications network. Any DEIS data from these activities are sent to DFSC personnel at DLA via facsimile or mail.

#### 1.1.4.3 Output Reports

DEIS reports have the same data fields as are input by the reporting activities, with the addition of subtotals and totals for some data fields. These reports reflect inventory data, how petroleum and utility energy were consumed, and how petroleum products were issued. Fifty-eight DEIS I and DEIS II output reports are produced regularly. These reports differ by their sort sequence, content, frequency and recipients. There are only 12 substantially different output report formats. DEIS-80 will produce these same reports. In addition to printed reports, DEIS data tapes are provided monthly to the Army Management System Support Agency, AFDS, and the Naval Ship Research and Development Center for interface with other reporting systems. These tapes are described in Section 4.4.8.

#### 1.1.4.4 DEIS Data Processing

DEIS data processing is completed using a variety of data entry equipment and a computer at the DLA facility at Cameron Station. None of this equipment is used exclusively or even primarily for DEIS data processing. Data entry equipment includes such devices as keypunches, teletype-compatible equipment, and computers which produce DEIS input as a result of local processing. The DLA computer center consists of an IBM 370/155 mainframe using the OS operating system. Several tapes and some disk storage of this system are used by DEIS.

The existing DEIS programs are written in COBOL and perform the file update, sorting, and report formatting functions in a batch mode.

DEIS data are maintained sequentially on magnetic tapes (one per fiscal year). The tapes contain all data since DEIS was established in 1974. Data for fiscal 1975 are currently used as the "base year" data for energy conservation measurement purposes.

This five-year history consists of approximately 41 megabytes of data. Approximately 4,600 records are reported each month; each year contains approximately 55,000 records (8.25 megabytes). DEIS I records contain three card images of 80 characters (since October 1979, previous fiscal years have 150-character records), and DEIS II records contain 170 characters.

DEIS "header" data are maintained on magnetic tape. There is a separate file of header data for DEIS I and DEIS II. These files contain descriptive data elements, such as an activity's name, Service, major command, geographic location, and DoD activity address code. The files are updated as changes are reported, but the individual items rarely change.

#### 1.2 Project References

This System Specification utilizes documentation from previous DEIS studies, analysis, and direct contact with DEIS users, data collectors, and data processors.

##### 1.2.1 Logistics Management Institute Documentation

"Review of the Defense Energy Information System (DEIS)," Logistics Management Institute, ML800, June 30, 1978.

"Defense Energy Information System (DEIS): Base Case Description," Logistics Management Institute, WN-ML809-1, November 20, 1978.

"Defense Energy Information System (DEIS): Current DEIS Assessment," Logistics Management Institute, WN-ML809-2, February 9, 1979.

"Defense Energy Information System (DEIS): Alternative System Concepts," Logistics Management Institute, WN-ML809-3, March 16, 1979.

"Defense Energy Information System (DEIS): Recommended Design Modifications," Logistics Management Institute, ML809, June 1979.

"Defense Energy Information System (DEIS): Current System Documentation," Logistics Management Institute, ML917, March 1980.

### 1.2.2 Other DEIS and Related References

"Defense Energy Information System," Department of Defense, DoD 5126.46-M, May 12, 1978.

"Defense Energy Information System Modification Specifications," Department of Defense, DoD 5126.46-M, August 1978.

"Defense Energy Information System - A Preliminary Analysis," Stanford Research Institute, SRI Project 2513-4, November 1973.

"Automated Data Systems Documentation Standards," Department of Defense, (OASD-Comptroller), 7935.1-S, September 13, 1977.

### 1.3 Terms and Acronyms

The following terms and acronyms have been used in this report.

#### 1.3.1 Terms

Back-Up Copy: A copy of a file or data set that is kept for reference in case the original file or set is destroyed.

Back-Up Procedures: Procedures which allow systems to be restored and interrupted processing to resume while maintaining system integrity.

Batch Processing: Pertaining to the control technique of grouping computer programs or data for input to a computer system for handling at the same time.

Data Base: The collection of computer-stored data which is accessed by a processing system and is fundamental to the performance of the capabilities of that system.

Data Base Administrator: The person responsible for the efficient organization and operation of the data base.

Data Element: A group of characters that specify an item, for instance, "month." A data element contains no subordinate items.

File: One or more records concerning places or things that are closely related and handled together for processing.

Function: One of several individual processes performed by a computer program, for instance, sorting a data base.

Interactive Processing: Pertaining to processing in which each entry elicits a response.

On-Line: (1) Pertaining to equipment or devices under control of the computer; (2) Pertaining to a user's ability to give the computer instructions and receive output without delay. Interactive processing is one type of on-line activity.

Record: A set of data elements closely related in the sense that they pertain to the same place or thing. An example is a "DoDAAAC product record", which contains consumption information about a particular product at one DoD activity.

Software: Computer programs or routines prepared by computer professionals to simplify and facilitate the use of the computer.

Subsystem: A coordinated group of components which form a secondary or subordinate system usually capable of operating independently of, or asynchronously with, a controlling system.

System: A coordinated organization of people, hardware, methods and procedures that operate together to achieve a predetermined set of objectives.

#### 1.3.2 Acronyms

|            |  |
|------------|--|
| AFDSC      | - Air Force Data Services Center   |
| ASD(MRA&L) | - Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) |
| COM        | - Computer Output to Microfilm   |
| DASD(EES)  | - Deputy Assistant Secretary of Defense (Energy, Environment, and Safety)  |
| DBA        | - Data Base Administrator  |
| DBMS       | - Data Base Management System  |
| DEIS       | - Defense Energy Information System  |
| DEIS-80    | - Revised Defense Energy Consumption Information System                    |
| DEIS I     | - Petroleum Products Portion of DEIS                                       |
| DEIS II    | - Utility Energy Usage Portion of DEIS                                     |
| DFSC       | - Defense Fuel Supply Center   |
| DFSC-CB    | - DFSC, Office of Comptroller, Management Information & Analysis Division  |
| DLA        | - Defense Logistics Agency   |
| DoD        | - Department of Defense  |
| DoDAAAC    | - DoD Activity Address Code  |
| GSA        | - General Services Administration  |

I&H - Installations and Housing  
NAVFAC - Naval Facilities Engineering Command  
NESO - Navy Environmental Support Office  
OASD - Office of the Assistant Secretary of Defense

## SECTION 2. SUMMARY OF REQUIREMENTS

The design of DEIS-80 is based on the procedures and capabilities identified and described in the "Defense Energy Information System (DEIS): Recommended Design Modifications," Logistics Management Institute, ML809, June 1979, and approved by the DASD (EES) and the Defense Energy Policy Council. This section describes DEIS-80, its functions, and its performance requirements.

### 2.1 System Description

DEIS-80 is a system for collecting, summarizing, and reporting mobility and utility energy usage information. It depends on input from Service or agency field activities or major commands and on DFSC inventory data.

The purpose of the system is to produce a series of monthly reports reflecting inventory data, how energy sources are utilized (consumed), and how products are issued from an activity, either for bulk transfer or for consumption. These reports are useful in estimating future energy requirements.

The implementation of DEIS-80 will significantly change existing data processing programs and will require the use of on-line terminals and additional software (a DBMS and application programs). AFDSC will provide the program development and implementation staff. AFDSC will also provide access to the mainframe used to process DEIS-80. Since the data are not classified and on-line access by various users is required, the INQUIRE DBMS as implemented on an unclassified computer will be used. DEIS-80 as described in this System Specification could be implemented on any large system with a generalized DBMS, however.

To minimize inconvenience to the 1,400 data collectors, DEIS data will continue to be transmitted to DLA using AUTODIN or the DoD message communication system. Revised instructions and formats will be published in the revised DEIS user's manual (DoD 5126.46-M).

To produce the reports, data must be collected and maintained. DEIS-80 has two subsystems. DEIS I covers mobility fuels and DEIS II covers energy used for utility purposes. Each subsystem has a data base which is maintained separately. There is no interaction between the two subsystems. The subsystems differ as to the type of data collected and the persons collecting the data, but the automated functions are very similar. In this section, the subsystems are treated together, although the detailed functions (described in Sections 4 and 5) and data bases are specified separately for DEIS I and DEIS II.

DEIS-80 offers the following improvements over the existing DEIS:

- a. Improved utility - DEIS-80 provides new data items needed for current user requirements, as well as the capability to support such features as ad hoc reporting, on-line queries, or trend analysis of energy data.
- b. Increased flexibility - Recent developments in national energy policy, changing energy technologies, and decreasing fuel supplies

create user requirements for more and varied data. The data base structure of DEIS-80 will provide the needed flexibility.

- c. Higher degree of accuracy - Problems in the current DEIS have resulted in a lack of confidence in, and reduced usefulness of, DEIS data. DEIS-80 simplifies and facilitates data entry and correction.
- d. More timely data collection and processing - Problems with data collection in the existing DEIS have resulted in late or incomplete reports. DEIS-80 simplifies data collection and includes a DBMS to facilitate processing of the data.

The Defense Energy Policy Office, ODASD (EES), has overall project management responsibility for DEIS. The Management Information and Analysis Division of the Office of the Comptroller, Defense Fuel Supply Center, is the DEIS system operator.

## 2.2 DEIS System Functions

This subsection addresses both the manual and automated functions designed to meet DEIS requirements. Each of the automated functions will be described in greater detail in Sections 4 and 5. Since the functions are very similar for DEIS I and DEIS II, they will not, for the most part, be discussed separately in this section. The following functions are displayed in the system flowchart in Figure 2-1. The subsection numbers, where applicable, are noted on the flowchart. Figure 2-2 shows the organizations responsible for these DEIS functions.

### 2.2.1 Collect and Report Data

DoD activities report DEIS I and DEIS II data monthly. Both the accuracy and timeliness of the reported data will be improved by the use of self-checking input worksheets. Appendix C contains the card layout for each of the input forms.

### 2.2.2 Maintain Data with a DBMS

DEIS flexibility and utility will be improved through use of a generalized DBMS. There are no programming requirements for developing the DBMS, since an existing system, INQUIRE, will be used. The DBMS should have the following capabilities and features:

- Multiple user on-line access
- Host language interface to the programming language to be used for applications programs
- Automatic restart/recovery for system crashes
- Automatic logging of updates
- Ability to add new data fields (non-keyed) to existing data base records

**FIGURE 2-1**

**DEIS SYSTEM FLOWCHART**

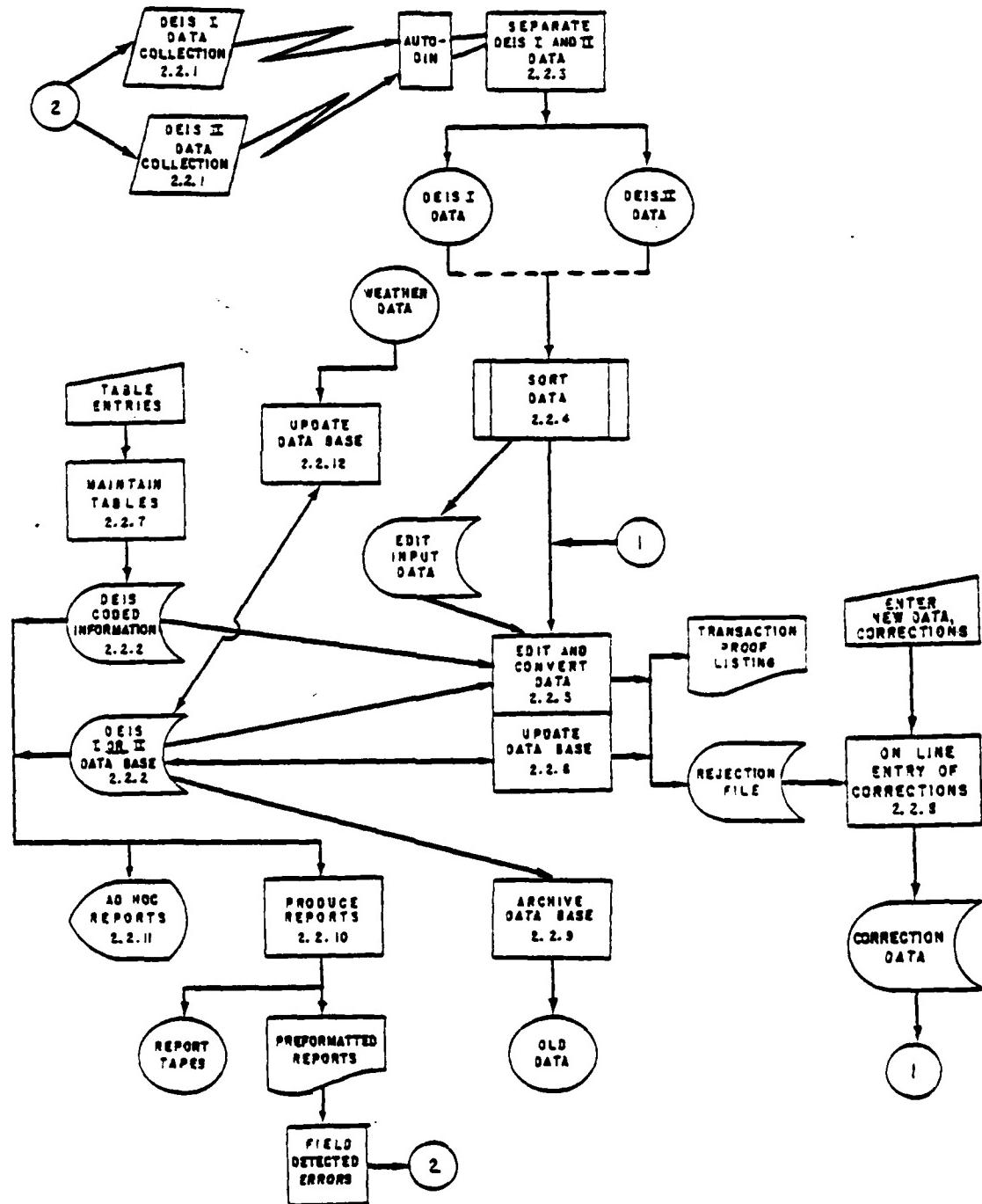
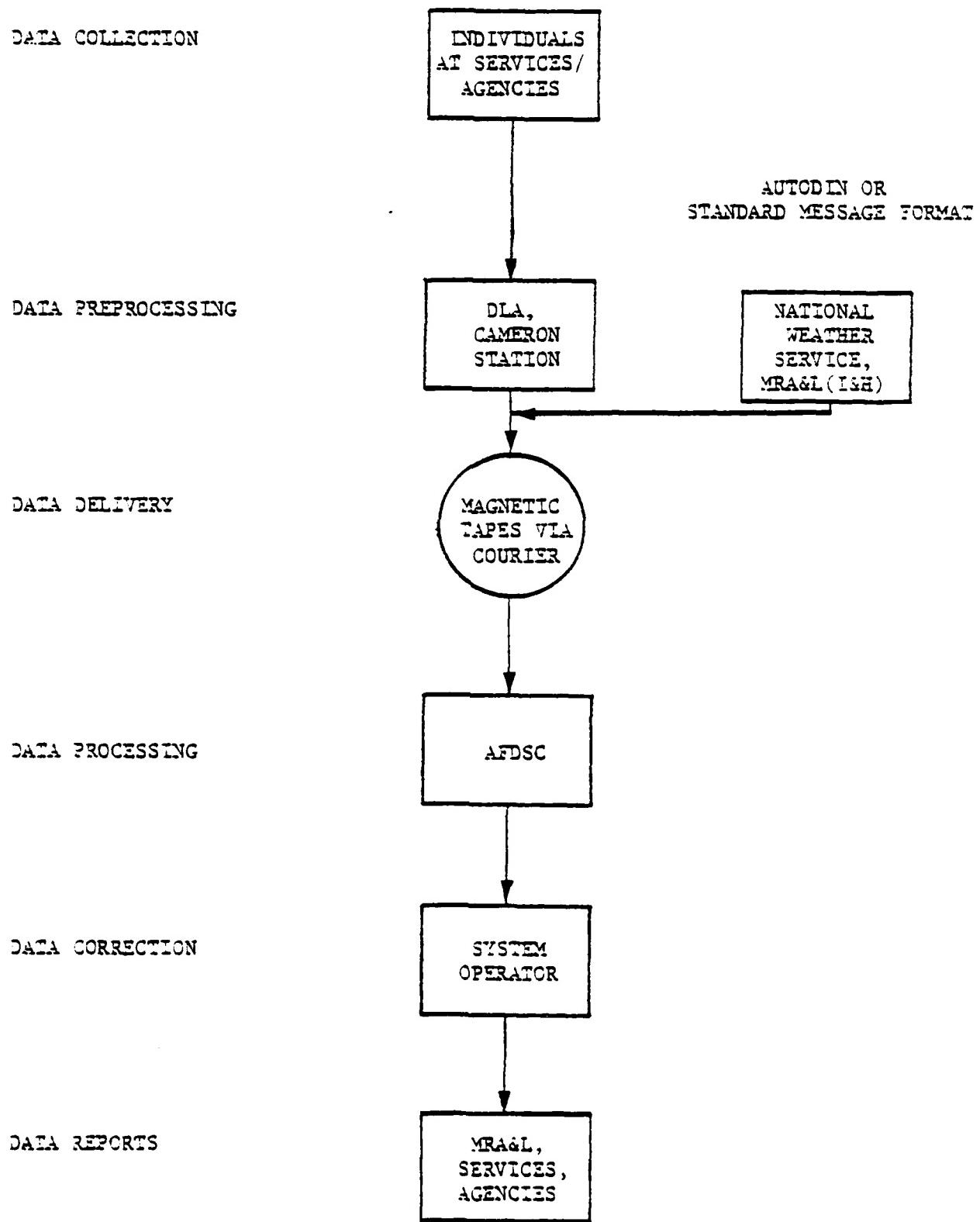


FIGURE 2-2  
ORGANIZATION FLOW OF DEIS DATA



- Batch update capabilities via host language program
- User password locks at the record level (will be needed when field data input starts, one to two years after DEIS-80 implementation)
- On-line query and report generation capabilities

#### 2.2.3 Separate DEIS I and II Data

Both DEIS I and DEIS II data are collected and reported from activities monthly. All DEIS data are addressed to the DLA computer center in a similar way. The initial separation of these data facilitates later editing and processing by each of the subsystems. The outputs of this process are separate DEIS I and DEIS II data tapes for delivery to AFDS and further processing.

#### 2.2.4 Perform Initial Sort

For increased efficiency in updating the data base, input data may be sorted and written to an edit input file. As indicated above, DEIS I and DEIS II data will be on separate files for this and all subsequent functions and will be processed in similar but distinct runstreams.

#### 2.2.5 Edit and Convert Data

All data will be converted to a format compatible with that required for updating the DBMS. All data will also be edited in an attempt to eliminate errors. The edits will include checks for missing data, correct format, and form (alphabetic or numeric). Those data items which pass the edit criteria will be converted (if necessary) to standard units and ultimately applied (added) to the data base. Records containing data items which fail the edit criteria will be placed on a Rejection File. Outputs from this function are: 1) a list of records with possible errors, and a list of activities reporting late, not reporting, reporting product changes, and reporting significantly different product usage; 2) a Rejection File containing erroneous, out-of-date, or questionable data; and 3) an Update File (or data base) containing accepted records. Error statistics will be collected and reported to the system operator (DFSC-CB).

#### 2.2.6 Update Data Base (Batch)

The actual data base update is performed through the generalized DBMS capabilities and provides for applying records with correct data to the data base. This function will be performed at least once each month. Due to late reporters and changes, the data base may be updated two or three times each month. Features of the DBMS, such as the ability to log updates automatically and create a Rejection File of records thought to be in error are also used in conjunction with the data base update.

In the future, the need to add or delete new data files or otherwise re-organize the data base may occur. The features of the DBMS will permit such updating, should it become necessary.

#### 2.2.7 Maintain Tables

Part of the DEIS data base will contain clear (uncoded) text of header and product coded data, conversion factors, and distribution lists for each report. Maintenance of these tables will be performed by AFDSC in cooperation with the system operator.

#### 2.2.8 Perform On-Line Data Entry of Corrections

This function provides the procedure to correct and resubmit records on the Rejection File, to change items in the data base, and to submit new data records for editing and updating the data base. Macros and screen formats may be provided to facilitate corrections and updates by infrequent users. All on-line corrections and updates will be entered on the Correction File for editing before data base updating.

#### 2.2.9 Archive Data Base

The DEIS-80 on-line data base consists of monthly data for the most recent 13 months and for the baseline year. It also contains quarterly summaries of monthly data for 5 previous years. This function will provide processing to incorporate the monthly data into quarterly data if necessary, unload unneeded monthly data to an Archival File, delete the appropriate data from the on-line data base, and create a history file in standard DBMS format.

#### 2.2.10 Produce Preformatted Reports

DEIS-80 will provide a series of standard reports and tapes on a scheduled basis. These reports may be prepared through host language interface with the DBMS for data retrieval. The scheduled reports include all the existing DEIS reports. The reports will be sent to the system operator for distribution to the Services, agencies, MRA&L(EES) and others as specified by the Defense Energy Policy Office.

#### 2.2.11 Generate Ad Hoc Reports

All data in the DEIS data base will be accessible to authorized users for generation of special, one-time, or new reports. Through use of the generalized DBMS, this function will provide an easy-to-use, interactive capability to access, retrieve, format, and print data for these reports. Interface to certain data reduction and statistical functions will also be provided. The final output will be directed to the terminal originating the request or to a specified hard-copy printer as the requester chooses. The requester may also choose to save the symbolic language statements which comprise a report request so that the same report or a modified version may be requested later with minimal effort.

#### 2.2.12 Add Data from Other Systems

Building and weather data needed for DEIS II reports will be received from the Services and agencies on magnetic tape. This function will convert the data to INQUIRE format and update the data base. This function will be performed annually for building data and monthly for weather data.

### 2.3 Accuracy and Validity

There will be several ways of ensuring the accuracy and validity of DEIS data. Improved manual procedures and controls will increase the likelihood of complete and accurate data being collected and recorded for all DoD bases, ships, installations, and activities. Data transmission errors will be minimized through the use of AUTODIN-I and self-checking worksheets. A number of syntax, format and value edits will be performed by the automated system when new transactions are added to the data base. A final, manual check on the data will be performed by persons who will inspect and evaluate the results of the submissions.

#### 2.3.1 Manual Procedures

Both the accuracy and validity of DEIS data will be increased through conscientious use of self-checking input worksheets (with instructions) and reduction of manual calculations. Any automated or managerial aids the Services can support should be available to persons collecting and submitting DEIS data. In addition, the automated DEIS-80 will provide timely input summary and performance reports of each reporting activity for distribution, through the Services and agencies, to each person collecting data.

#### 2.3.2 Data Transmission

The use of the AUTODIN-I communication system is specified in the existing DEIS and, wherever available, it should continue to be used. AUTODIN contains parity error detection and correction routines which are superior to those used in the teletype-based DoD message communication system.

#### 2.3.3 Automated Edits and Calculations

Various data edits will be performed automatically when new DEIS transactions are added to the data base. All required data items will be examined to verify the presence of data. All data will be verified for format (numeric or alphabetic) and value, as specified in the DEIS I and DEIS II data dictionaries in Appendices A and B.

Calculations in DEIS are limited to unit conversions and summary (totals) calculations. In general, these calculations will result in a whole number; however, certain conversions should be kept to two decimal places (see Appendix B). In either situation, should arithmetic operations result in more than the required accuracy, all amounts with a number greater than or equal to five in the next significant decimal place will be rounded up, and all amounts with a number less than five in that decimal position will be truncated either to two decimal places or to a whole number, as appropriate.

#### 2.3.4 Scheduling and Timing

As of October 1980, all DEIS data will be collected and reported as of the last day of each month. DEIS I data were previously reported as of the last Friday of the month. DEIS I reports must arrive at DLA by the third working day of the following month. DEIS II reports must arrive at DLA by the 28th of the month following the end of the reporting period. Reports are due at the Defense Energy Policy Office by the 10th of each month.

The initial sorting, editing and data base updating should be initiated the day AFDSC receives the input (usually the day after the due date). Between that time and the 9th of the month, most of the interactive processing will take place as data items are corrected and added. The system operator will enter correct or new data in an on-line mode. Late data may also be submitted by DLA on tape if the volume of late reporting activities warrants batch processing. It is expected that on-line activity may be as much as 4 to 6 hours per day for 7 working days preceding the 9th of the month. Syntax edits will be performed and response will be provided in conversational mode within several seconds.

The corrected data will then be edited and applied to the data base by a batch job initiated by the system operator. Much of the batch updating will be completed overnight (as AFDSC scheduling permits), as will production of the regularly scheduled reports (initiated the night of the 9th of each month). Depending on the volume of update transactions, the system operator may request overnight processing or processing that should be completed within two to three hours.

Ad hoc reports and queries will be provided within a few minutes to four hours, depending on the complexity of the request and whether the output is directed to the originating terminal or to a printer. Simple queries, such as those requiring no sorting and output of less than 500 lines, will be provided within 15 minutes under normal circumstances. Queries which result in sorting, extensive accumulation of data, and a larger amount of output will be provided within four hours.

#### 2.4 Flexibility

Use of a generalized DBMS is the basis of DEIS flexibility. The DBMS permits acceptance of new data elements as they become relevant to DEIS users, easy creation of new reports, and on-line queries and corrections, and provides analytical capabilities as well.

A number of changes and improvements to DEIS have been discussed and may be implemented in the future. To ensure consistent support of DoD energy goals, any change which constitutes a change in DEIS requirements must be approved by the DASD (EES) and the Defense Energy Policy Council prior to development or implementation.

## SECTION 3. DEIS ENVIRONMENT

### 3.1 Equipment Environment

DEIS-80 will depend on unclassified equipment at AFDSC for the bulk of its data processing. For optimal processing, at least three separate disks should be available for data base storage.

Based on the size of the data dictionary for DEIS I and DEIS II (see Appendices A and B) and the level of reporting currently processed, it is estimated that the DEIS I data base will contain 36 million characters, and the DEIS II data base, 45 million characters. These estimates do not include any overhead required by the DBMS, which may require 50 percent more disk space. The DEIS I data base will contain 7 index fields, the DEIS II data base, 10 index fields.

Based on the size of existing DEIS programs, about 38,000 lines of code may be generated, with typical programs requiring a region size of approximately 100K. This does not include the size of the DBMS (INQUIRE).

In addition to the computer mainframe, the following equipment will be utilized:

- a. Communications network: DEIS data will continue to be transmitted over AUTODIN-I or the DoD message communication network (teletype-compatible terminals) in most instances.
- b. DLA computer center: DEIS data will continue to be transmitted to DLA's computer center where magnetic tapes of the data will be produced for courier delivery to AFDSC. In the future, DEIS data may be routed to AFDSC and the courier service will be unnecessary.
- c. Tape drives: In addition to the disk drives and packs required for on-line data and program storage, tape drives will be required both to read DEIS data as submitted from DLA and to record data for archival purposes.
- d. I/O devices: A card reader, high-speed printer, terminals (CRT, graphics, hard copy), and COM capabilities are required. The system operator requires three terminals (preferable bisynchronous) for entry of data and queries. In addition, the system operator needs a 300-line-per-minute printer for small error reports and queries. The Defense Energy Policy Office requires one terminal (portable, hard copy) for queries. It is expected that not more than three terminals will be accessing the DEIS data base at any one time.

In the future (3 to 4 years), installations that have terminals may submit DEIS data directly to a file at AFDSC for rudimentary on-line editing. It is expected that less than one-fourth of the users would submit data in this manner and each user would submit an average of 30 and a maximum of 300 card images.

### 3.2 Support Software Environment

The support software required is already available at AFDSC and DLA and includes the following:

- a. An operating system
- b. At least one high-level programming language (COBOL or PL/I)
- c. Communications software (to monitor and ensure accuracy of data transmission)
- d. Data base management software (INQUIRE).
- e. Statistical packages
- f. Software similar to IBM's Structured Programming Facilities (to enhance the ease of on-line editing capabilities)

This support software provides the basis for AFDSC to produce the DEIS-80 application software.

### 3.3 Interfaces

There is no direct hardware or software interface between DEIS and any other automated system. However, DEIS interfaces with other automated systems via data transmissions, as described below.

#### 3.3.1 Interface with DLA

The DLA computer center will provide tapes containing DEIS data as submitted through AUTODIN, DoD's message communication system, or hard copy. This may include data which have undergone pre-DEIS processing from any of the Services. Service data submitted on magnetic tape must be in the same form as those produced by DLA for AFDSC, that is, they must contain DEIS data card images as described in Appendix C.

After DEIS-80 is completed (including parallel testing) and fully operational, the DEIS routing indicator may be changed so that data come directly to AFDSC. This would save the time needed to transport the tapes.

#### 3.3.2 Interface with Installations and Housing

Each of the Services, through Installations and Housing, will provide a magnetic tape of building data (see Appendix B) for each base and facility. Building information will be processed annually for the Army, Marine Corps, Air Force, and Navy for inclusion in the DEIS II data base.

#### 3.3.3 Interface with the National Weather Service

Each month the National Weather Service will provide a magnetic tape containing monthly degree days at its weather stations near DoD bases/ installations. Those data will be included in the DEIS II data base.

### 3.4 Security and Privacy

DEIS contains no classified information and no information on individuals and, therefore, does not have any specific privacy and security requirements. Procedures to ensure the integrity of the data base are discussed in the following subsection.

### 3.5 Controls

Once DEIS implementation is substantially completed, operational control will be imposed by the Defense Energy Policy Office administrative functions. This office will be the focal point for policy concerning the needs of numerous users and a widely distributed input process. The Defense Energy Policy Office has also delegated the function of the Data Base Administrator (DBA) to the system operator (DFSC-CB).

The major required DBA functions are:

- a. Review of inputs to ensure completeness and accuracy of data submissions
- b. Consultation with users and AFDSC to determine if data base contents or organization requires change
- c. Development of standard definitions for data items
- d. Review of data base and system statistics
- e. Control over initiation of update runs, restart/recovery procedures, data base back-up procedures, and initiation of report generation (initially through liaison with the AFDSC)

## SECTION 4. DEIS I DESIGN DETAILS

The overall requirement for the DEIS I subsystem is to provide reports and easy access to data so that petroleum product usage and inventories within DoD can be monitored easily and accurately. With this general design criterion as a guideline, the following requirements were developed. First, DEIS I data will be maintained on an unclassified system and use a DBMS that supports on-line queries through standard data base retrieval routines. Second, the DBMS will provide the capability to add or delete data element fields when new requirements arise. Third, data entry will be easy for users and yet controllable by those responsible for managing DEIS. Fourth, data editing, including both format and reasonableness criteria, will provide increased accuracy. Finally, code translation capabilities and report generation procedures will be included in DEIS I to increase the readability of the reports and the responsiveness of the system. The specific functions designed to meet these requirements are described in the following paragraphs.

### 4.1 General Operating Procedures

#### 4.1.1 Data Requirements

The capability must be provided to input DEIS I data on-line to the Correction File as well as from cards and card images on magnetic tape. Edit procedures will prevent double entry of data; duplicate records will be printed on an error report (called a Transaction Proof Listing).

All data submitted from a field activity will be handled as an add transaction unless data for the same date, DoDAAC and product code exist in the data base. DFSC-CB will retain a listing of the original data submitted from the field activities for one year, either on the DD173 message form or a listing of validated punched cards received via AUTODIN.

#### 4.1.2 System Scheduling Requirements

DEIS I data are due at DLA, Cameron Station, by 0800 hours on the third working day of the month. DEIS I data are due at AFDSC by 0800 hours on the next day of the month. Initial data editing, including the production of preliminary reports and the nonreporting activities report, should be completed by 0800 hours on the seventh day of the month. Data from late reporters and changes due to the initial editing will be entered between the seventh and ninth days of the month. Final reports should be provided to the Defense Energy Policy Office and the designated defense components not later than the tenth day of the month. The system operator will initiate the request for these final reports. Table 4-1 summarizes the processing cycle for DEIS I. This schedule is the optimal processing cycle and will be revised after the system is operational. The AFDSC will advise the system operator of any machine or scheduling problems affecting this schedule.

#### 4.1.3 Data Base Back-up Procedures

The information containing DEIS I data received from DLA will be retained for three months at AFDSC and then returned to DFSC-CB. Transactions entered on-line will be retained for 24 hours. All files of transactions in error

TABLE 4-1

DEIS I PROCESSING CYCLE

| <u>Day of the Month</u> | <u>Responsible Party</u> | <u>Actions Required</u>  |
|-------------------------|--------------------------|--|
| last                    | Activity/Installation    | Collect DEIS I data.   |
| 1-4                     | Activity/Installation    | Submit DEIS I data for transmission.   |
| 5                       | DLA                      | After 0800 hours, separate DEIS data, produce tape, and send to AFDSC.                             |
| 6                       | AFDSC*                   | Run update. Send list of errors, non-reporters, and non-current data to DFSC-CB.                   |
| 6-9                     | DFSC-CB                  | DFSC-CB will work with AFDSC to run edits as required to produce an accurate data base.            |
| 7                       | DFSC-CB                  | Notify non-reporters, confirm non-current data and start error corrections.                        |
| 8                       | DLA                      | Separate late-arriving DEIS data, produce tape, and send to AFDSC.                                 |
| 9                       | AFDSC*                   | Update data base with new data. Deliver report tape to DLA.  |
| 10                      | DLA                      | Produce, bind, and deliver reports to Defense Energy Policy Office and the Service energy offices. |
| 11-15                   | DFSC-CB                  | Enter remaining corrections, and late reports. Request edit, update, report cycle, if necessary.   |
| 15                      | AFDSC                    | Archive data.  |
| all                     | DFSC-CB                  | Maintain tables and coded information. Enter corrections to data base.                             |

\* 24-hour or less turnaround is preferred but some delay is acceptable.

will be backed up and saved until the 15th of the month. A file of all changes to the data base will be saved and backed up. This file will be deleted on the 15th of the month or when specified by the system operator. The back-up of this file will be retained for one year. The entire data base will be backed up annually in October. Monthly archive tapes of the data base (detail monthly data and summary data no longer needed on-line) will be kept for 5 years on tape or disk. This monthly archiving of data will use relevant INQUIRE capabilities so that the data base can be easily recreated.

#### 4.1.4 Recovery Procedures

Restart and recovery procedures will conform to standard AFDSC procedures. Transaction logging, retention of DEIS I data tapes, and data base back-up will permit recovery of a damaged data base. AFDSC will develop recovery actions consistent with their operating procedures.

#### 4.1.5 Access to Archived Data

Occasionally, data not contained in the on-line data base will be needed. Procedures (using INQUIRE capabilities) will exist to create a temporary INQUIRE data base containing archived data for use in on-line data retrieval and data reporting. Since archived data are not updated, this data base may need to be updated before it is used to generate reports.

#### 4.1.6 DEIS I Data Monitoring

The Defense Energy Policy Office has management responsibility for DEIS I, and AFDSC has programming responsibility. DLA manages DEIS operations through the DEIS system operator at DFSC-CB. The DEIS system operator is authorized direct communication with all reporting activities to request late reports and to verify reported data. The DEIS system operator is responsible for making (with Defense Energy Policy Office authorization) all changes to data more than 90 days old. DFSC-CB also coordinates with AFDSC any changes to coded or tabular information in the data base and any changes concerning authorized users. DFSC-CB enters data on fuels in transit and works with the Defense Energy Policy Office and AFDSC when changes to DEIS are anticipated.

### 4.2 DEIS I Subsystem Logic Flow

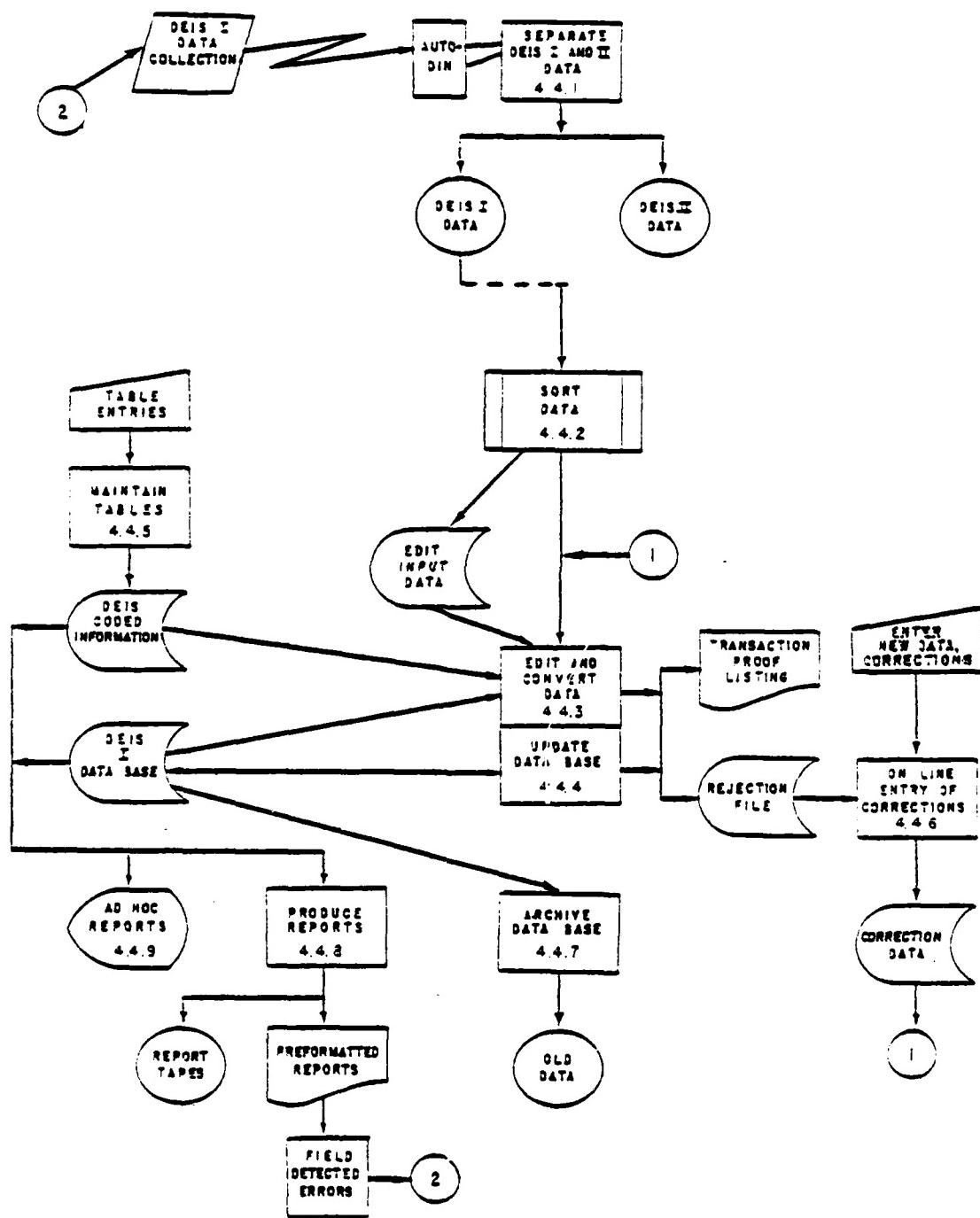
The general system flow of DEIS I is designed to provide functions to process and access petroleum product data in a timely manner. Figure 4-1 illustrates the logical flow of the subsystem.

Data enter DEIS I through AUTODIN, the DD173 message form, or other communications media. The data are collected at DLA, Cameron Station, and DEIS I data are separated from other data and recorded on magnetic tape. The DEIS I data are then transmitted to AFDSC for further processing.

At AFDSC, DEIS I data are sorted and edited for format and validity (compared to data already in the data base). Records believed to be in error are placed on the Rejection File for review. Records with a date older than 90 days are also placed on the Rejection File. In addition, those activities which have not submitted DEIS I data are identified and reported. Data which pass these edits are converted to the INQUIRE data base format, and the data base is updated.

FIGURE 4-1

DEIS I SYSTEM FLOWCHART



Data records believed to be in error are corrected and resubmitted for editing, conversion, and data base updating. Data relating to installations, such as the name and address, product names, and conversion factors, are maintained on an INQUIRE coded information file.

DEIS I reports will be produced once the monthly reporting cycle is completed or by the 10th of each month. Ad hoc reports and data base queries will be made on an as-needed basis. Errors in reports detected by the data submitters can be corrected by submitting corrections via AUTODIN or notifying the system operator of the corrections.

The data base will contain detail data for installation (DoDAAC) petroleum product usage for the most recent 13 months and for the baseline (1975) 12 months. Quarterly summary data will be in the data base for each installation and each petroleum product used for the 5 years prior to the earliest of the most recent 13 months. Each month, the appropriate monthly and quarterly data will be removed from the on-line data base and saved off-line for possible reload and retrieval.

#### 4.3 Subsystem Data

Included in this subsection are a description of the inputs, outputs, and data used.

##### 4.3.1 Inputs

A description of the data elements used in DEIS I, including the data element number and name, source format, and acceptable values, is contained in Appendix A. All data items from the field will be submitted monthly according to the schedule described in 4.1.2. Approximately 883,200 characters will be submitted monthly. Coded information items will be submitted on an as-needed basis.

Table 4-2 shows the layout of the data (monthly) on the master files for fiscal years 1975 through 1978. These data have been edited and may be accumulated without any further editing into quarterly data (as described in Section 4.4.7) and loaded into the data base. These tapes (one per fiscal year) are 7 track, unlabeled, even parity, 800 BPI. The record size is 150 and the blocking factor is 23. The 77T quarter and all prior fiscal years have been converted; so that the fiscal year for all years is the current October 1 to September 30 timeframe.

Monthly data for fiscal years 1979 and 1980 are in MEA 2, 3 and 4 card format. These data also have been edited. The 1979 data may be accumulated into quarterly data and loaded into the data base. The monthly data for 1980 may be loaded into the data base almost unchanged. The Julian date must be converted to a month and year date. These tapes are 7 track, unlabeled, even parity, 800 BPI. The record size is 80 and the blocking factor is 40.

TABLE 4-2  
PRE-1978 DEIS DATA

| <u>DATA ELEMENT NUMBER</u> | <u>DATA ELEMENT DESCRIPTION</u> | <u>LENGTH</u> | <u>RECORD POSITION</u> |
|----------------------------|---------------------------------|---------------|------------------------|
| 9                          | DoDAAC                          | 6             | 1-6                    |
| 38                         | TAC                             | 1             | 7                      |
|                            | Filler                          | 1             | 8                      |
| 28                         | Region Code                     | 2             | 9-10                   |
|                            | Filler                          | 1             | 11                     |
| 37                         | State Code                      | 2             | 12-13                  |
|                            | Filler                          | 1             | 14                     |
| 21                         | Product Code                    | 3             | 15-17                  |
|                            | Filler                          | 1             | 18                     |
| 19                         | Opening Inventory               | 9             | 19-27                  |
|                            | Filler                          | 1             | 28                     |
| 15                         | Base Issues*                    | 9             | 29-37                  |
|                            | Filler                          | 1             | 38                     |
| 4                          | Receipts-Commercial             | 9             | 39-47                  |
|                            | Filler                          | 1             | 48                     |
| 11                         | Receipts-DoD                    | 9             | 49-57                  |
|                            | Filler                          | 1             | 58                     |
| 3                          | Closing Inventory               | 9             | 59-67                  |
|                            | Filler                          | 1             | 68                     |
| 14                         | Installation Name               | 40            | 69-108                 |
|                            | Julian Year                     | 2             | 109-110                |
|                            | Julian Day                      | 3             | 111-113                |
|                            | Filler                          | 1             | 114                    |
| 17                         | Major Command                   | 10            | 115-124                |
|                            | Filler                          | 24            | 125-148                |
| 32                         | Service Code                    | 1             | 149                    |
|                            | Filler                          | 1             | 150                    |

\* Total Consumption = Base Issues for these records except when TAC = 9 (DFSC wholesale data). The Region, State, Installation Name, Major Command and Service Code fields are not processed since these fields exist for the DoDAAC on the Header File.

#### 4.3.2 Outputs

The following is a list of the reports generated by the DEIS I subsystem. More detail on the report formats is contained in the descriptions of the functions.

- Transaction Proof Listing
- DEIS I Monthly Activities Not Reporting

- DEIS I Activities Reporting Changes
- Monthly, Quarterly, and Cumulative Consumption Reports
- Monthly Petroleum Report
- Cumulative Petroleum Report
- Monthly/Quarterly Installation Summary
- State Summary Totals
- Vessel Summary Totals
- Region Summary Totals
- Monthly/Quarterly/Cumulative CONUS Summary Report
- Monthly/Quarterly/Cumulative Worldwide Summary Report
- Monthly/Quarterly/Cumulative Worldwide Category Summary
- Ad Hoc Reports

#### 4.3.3 Data Base

The DEIS I data base will be constructed using the INQUIRE DBMS. Figure 4-2 shows a schema of the data base. It is expected that the on-line data base will contain (not including any overhead) approximately 55,000 records of 150 characters.

#### 4.4 DEIS I Subsystem Program Descriptions

DEIS I subsystem programs are described in the following paragraphs. The functions are presented in the sequence in which they will typically be used during a DEIS I reporting cycle.

##### 4.4.1 Separate DEIS I and DEIS II Data

The processing required for this function exists at DLA and will be used without modification.

###### 4.4.1.1 Purpose

Although DEIS I and DEIS II data may arrive at DLA on the same day, the two subsystems are separate and require separate editing and processing steps. All data transmitted to DLA via AUTODIN or the DoD standard message form contain both a system and a routing identifier. The system identifier is contained in the first three positions of each card image. The identifier assigned to DEIS I is MEA, and the identifier assigned to DEIS II is MEB. To facilitate handling, the DEIS I and DEIS II data are separated and written on separate tapes before further processing.

FIGURE 4-2

DEIS I DATA BASE SCHEMA

|                           | <u>length</u> |
|---------------------------|---------------|
| <u>DoDAAC*</u>            | 6             |
|                           |               |
| \| TAC                       | 1             |
| \| Service                   | 1             |
| \| Major Command             | 10            |
| \| DOE Region                | 2             |
| \| State/Country             | 2             |
|                           | <u>22</u>     |
| <br>DATES (45)            | 4             |
|                           |               |
| \| PRODUCT CODES             | 3             |
| \| Opening Inventory         | 7             |
| \| Issues                    | 7             |
| \| Commercial Receipts       | 7             |
| \| DoD Receipts              | 7             |
| \| Closing Inventory         | 7             |
| \| Primary Use               | 6             |
| \| Secondary Use             | 6             |
| \| Tertiary Use              | 6             |
| \| Total Consumption         | 7             |
| \| Average Daily Consumption | 6             |
| \| Loss/Downgrade            | 6             |
| \| Aviation                  | 6             |
| \| Quantity Issued to 1      | 5             |
| \| Quantity Issued to 2      | 5             |
| \| Quantity Issued to 3      | 5             |
| \| Inter-Service Transfers   | 6             |
| \| Non DoD Transfers         | 5             |
| \| Intra-Service Transfers   | 6             |
| \| Service Use 3             | 6             |
| \| Service Use 4             | 5             |
| \| Date of Update            | 4             |
| \| Correction Code           | <u>1</u>      |

129 characters per Product Code

Assuming an average of 5 products per DoDAAC and 1400 DoDAACs, data base size is 42.3 million bytes.

Assuming an average of 3 products per DoDAAC and 1400 DoDAACs, data base size is 26 million bytes.

\* Keys are underlined

#### 4.4.1.2 Data Definition

The only data items of the input records that need to be examined for this function are the first three positions of each input record (card image). These positions should contain MEA or MEB. Table 4-3 lists the common data fields on the input records.

TABLE 4-3  
SEPARATION OF DEIS I AND II DATA

| Data Dictionary<br><u>Element Number</u> | <u>Element Name</u> | <u>Comments</u>                      |
|--|---------------------|--------------------------------------|
|  | Card Type           | System Identifier MEA or MEB         |
|  | Card No.            | 2, 3, or 4                           |
| 10                                       | DoDAAC              | First letter designates Service      |
| 38                                       | TAC                 | 9 or blank                           |
| 29                                       | Rpt Date            | Reporting date (month, year)         |
| 21                                       | PROD CODE           | Product Code                         |
|  | Detail data         | Remaining MEA or MEB record contents |

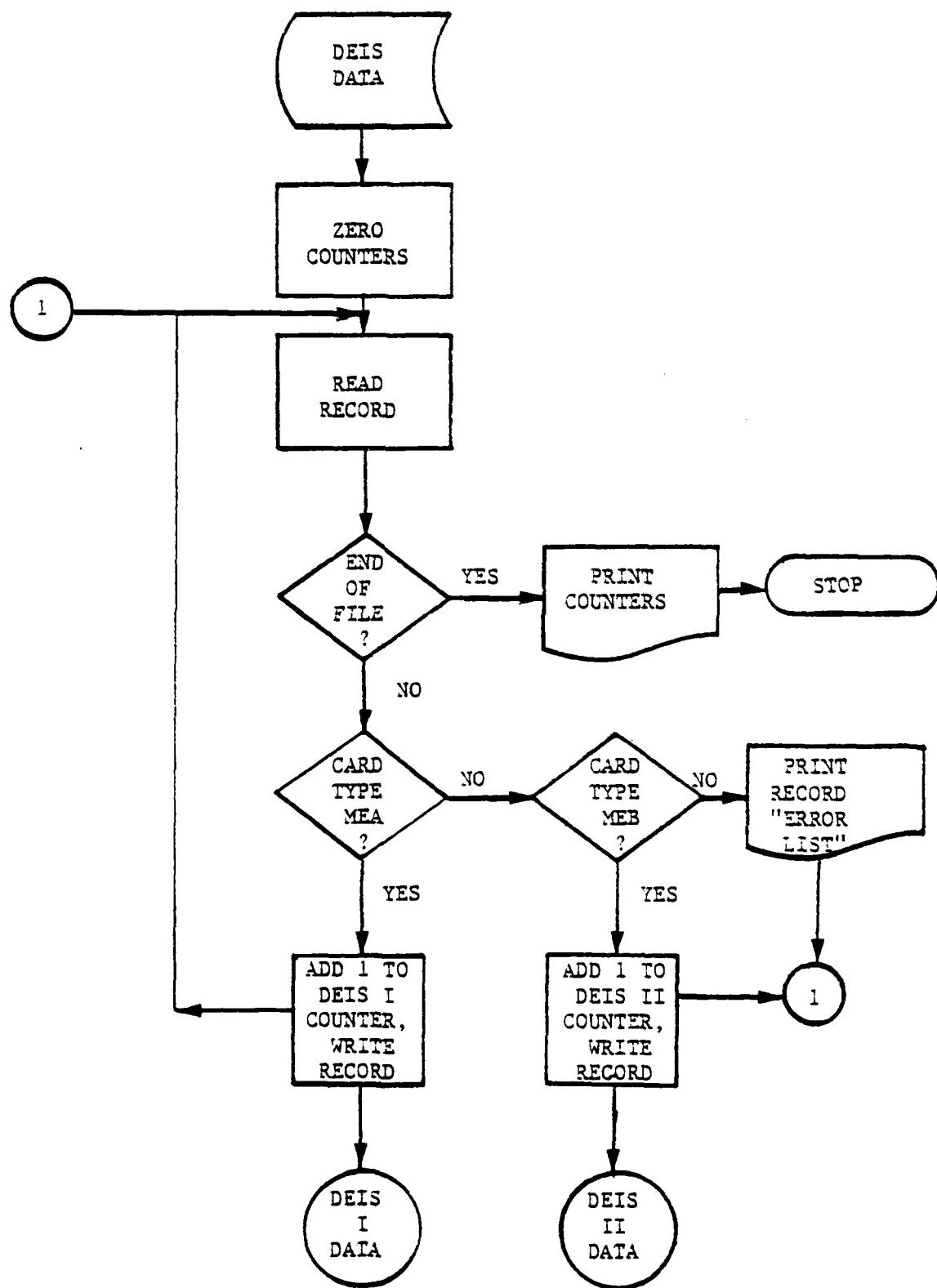
#### 4.4.1.3 Processing Logic

This function will be run as often as necessary to retrieve DEIS data received from DoD activities. The flowchart in Figure 4-3 details the major processing steps. If the record does not contain MEA or MEB in the first three positions, it will be placed on an error listing for examination by DLA for possible misrouting.

#### 4.4.1.4 Outputs

The DLA output of this function reflects the input. Two tapes are produced--one for DEIS I data and one for DEIS II data. Each tape contains 80-character records (same format as the data input), with 44 records in a block. The label records are standard, the recording mode is F, and the tapes are written by DLA's IBM 370/155 facility at Cameron Station. These tapes will be delivered by courier to AFDS for further processing.

FIGURE 4-3  
SEPARATE DEIS I AND DEIS II DATA



#### 4.4.2. Sort DEIS I Data

The processing required for this function entails a standard ascending sort on five fields of data. There will be approximately 13,000 card images to be sorted each month.

##### 4.4.2.1 Purpose

The purpose of this function is to order the data elements for more efficient updating of the data base and editing of the data in subsequent processing steps.

##### 4.4.2.2 Data Definition

The following data will be used in the listed sequence as sort keys:

DoDAAC  
Reporting Date (Year)  
Reporting Date (Month)  
Product Code  
Card Number

A more detailed description of these data items can be found in Appendix A.

##### 4.4.2.3 Processing Logic

All records will be processed by this function and passed to the edit and convert function (4.4.3). The flow chart in Figure 4-4 details the major processing steps of the DEIS I sort function.

##### 4.4.2.4 Output

The output of this function is a file containing sorted records.

#### 4.4.3 Edit and Convert Data

This function will test to ensure that there are three cards (MEA 2,3,4) for each product, test numeric fields, check whether the data were previously edited, check the data for reasonableness, and convert the data to the format required to update the data base.

##### 4.4.3.1 Purpose

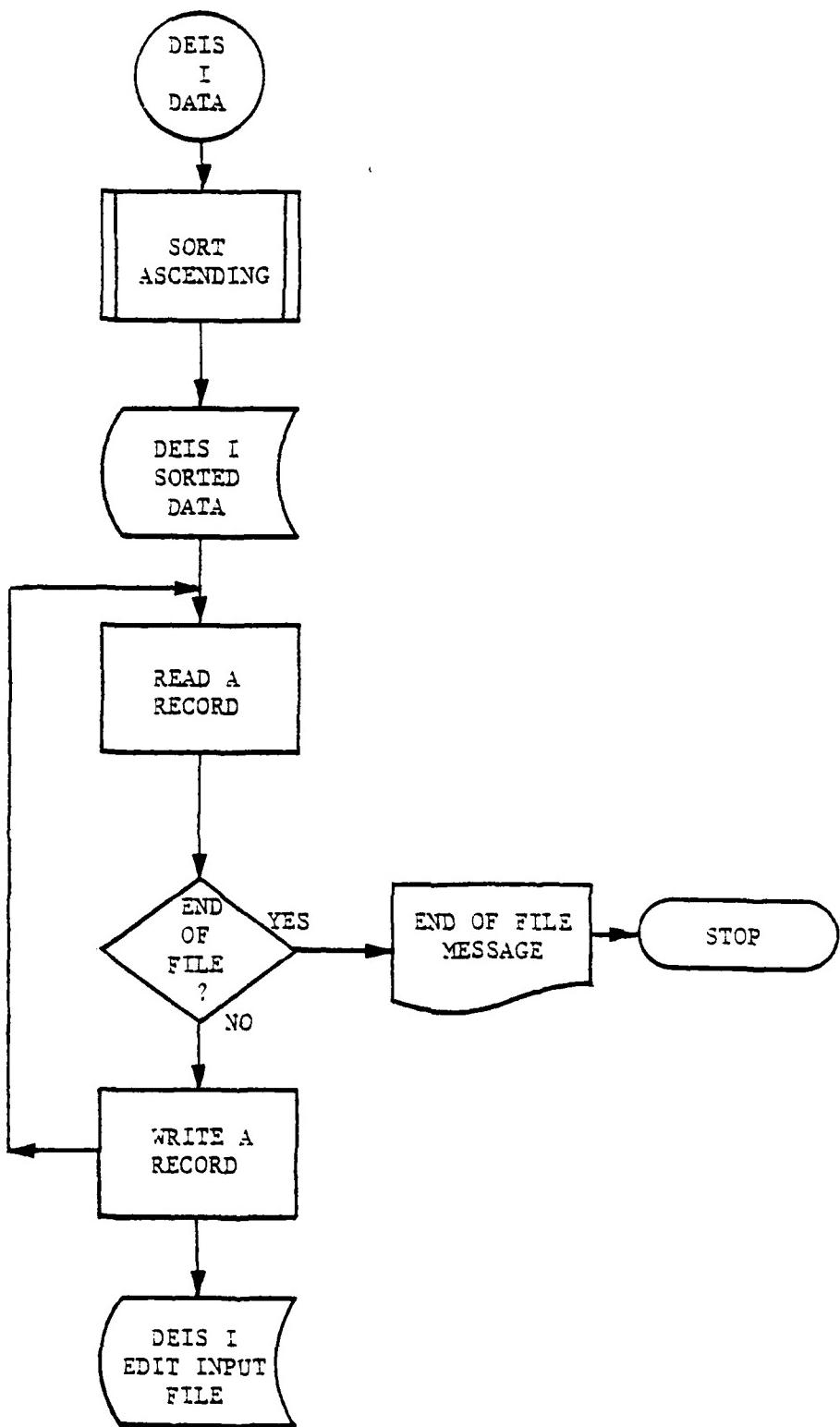
The purpose of this function is to edit/validate DEIS I product information, to produce the Transaction Proof Listing of those records which fail the edit criteria, and to format the data for updating the data base.

##### 4.4.3.2 Data Definition

The data items input to this function are described in more detail in Appendix A. In this section, when the words "product record" appear, they mean all the data contained on the MEA 2,3, and 4 input cards in either card image format or another format.

FIGURE 4-4

DEIS I DATA SORT



#### 4.4.3.3 Processing Logic

A previously edited, revised, and/or correct product record will contain an E in position 79. If this product record fails a second edit, it will be placed on the Rejection File and the Transaction Proof Listing (with a message that the second edit failed). The data from this product record will also be placed on the Accepted Records File so that correct data that fail the edit criteria can still be processed. The following paragraphs specify the edit criteria.

Figure 4-5 provides a flowchart of major processing steps in the data edit and conversion function.

##### 4.4.3.3.1 Common Data Edits

Due to transmission errors, the data may be offset by one column. Some of these errors are recoverable. If the blank is missing or there are two blanks between

- MEA (Card Type) and Card Number,
- Card Number and DoDAAC,
- DoDAAC and Reporting Date, or
- Reporting Date and Product Code,

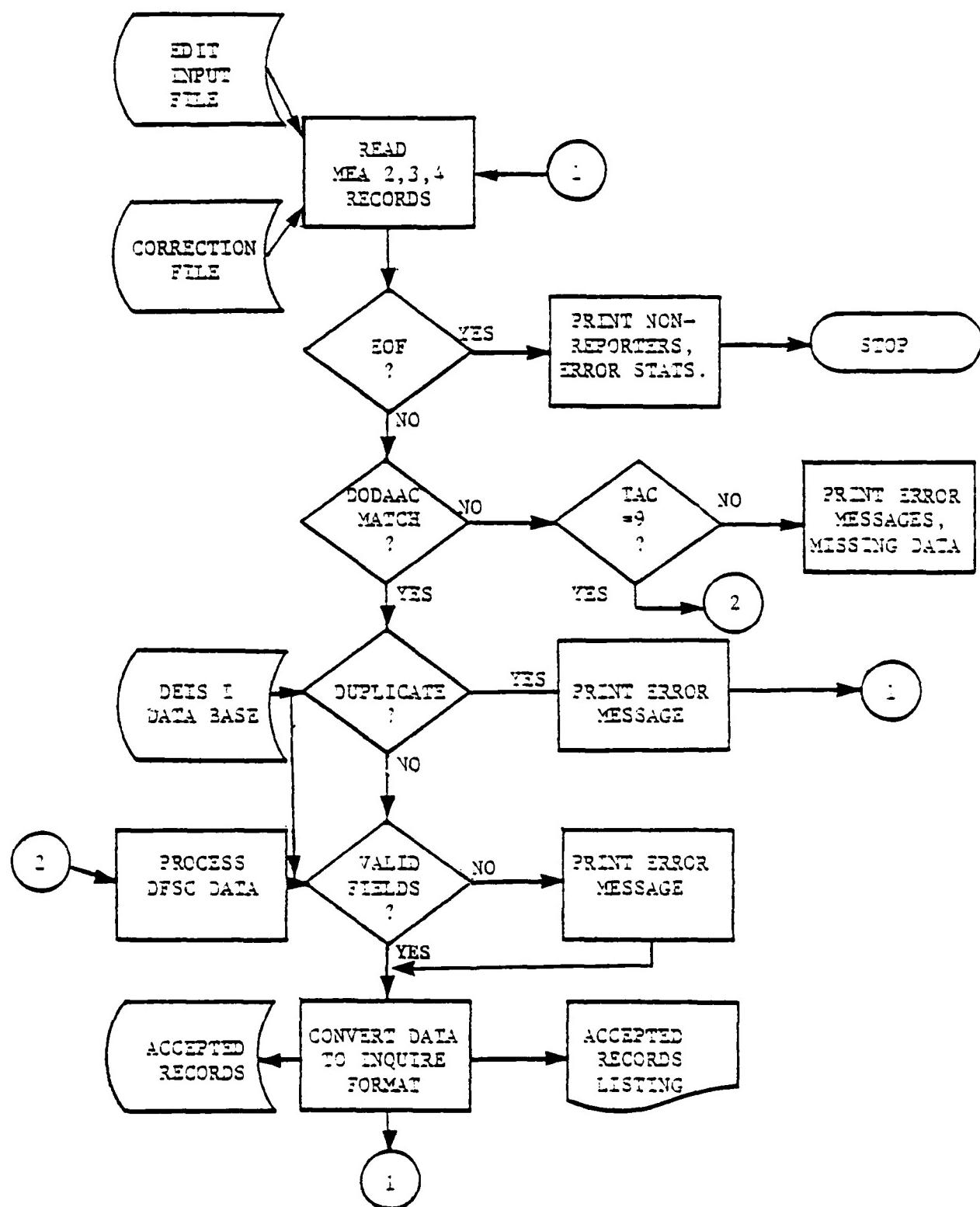
the blank space will be inserted (or deleted) and the edit process will continue. These card images will be printed as they were submitted on the Transaction Proof Listing with a message that a space was inserted (deleted) and the position (card column) where the change was made. Misalignment in other fields of the input record are not recoverable. The error message for these records will indicate that the blank field is filled (and the card column) at the misalignment.

Three data elements are common to the MEA 2, MEA 3, and MEA 4 data formats: DoDAAC, Date, and Product Code. Validation of these three elements is as follows.

The DoDAAC of the MEA 2/3/4 input must match a DoDAAC in the data base. (Before this validation occurs, all DoDAACs beginning with R or V (vessels) on the MEA 2/3/4 input must first be converted to N for comparison purposes.) If the DoDAACs do not match, the record must be indicated with an error message on the Transaction Proof Listing.

The date (MO,YR) of a MEA 2/3/4 triplet must be less than or equal to the date of the period being reported. To facilitate this validation, the correct date may be submitted on a PARM card. If the input date is older than three months, the record/records should be printed with an error message indicating that the change is out-of-date and placed on the Rejection File. If the input date is ahead of the correct date (such as 04,91 when the correct date is 04,81), the area message should indicate an invalid date.

FIGURE 4-5  
DEIS I EDIT AND CONVERT DATA



The Product Code on a MEA 2/3/4 card must match acceptable/valid product codes established on the coded information portion of the data base. Before this match is made, however, the following conversion should be accomplished. If the Product Code on the MEA 2/3/4 card is NFD, convert it to NDF. If the Product Code is NFS, convert it to NSF. If the Product Code is DFZ, convert it to DF2. If the Product Code is JPS, convert it to JP5. If there is a hyphen in the Product Code, remove it and shift the subsequent fields before the misalignment of the fields is checked.

If, after the above conversion and a match with valid product codes, the Product Code on the input is not valid, print the record on the Transaction Proof Listing with a message such as INVALID PRODUCT CODE and place the record on the Rejection File.

#### 4.4.3.3.2 MEA-Specific Edits

Validation of other data on the MEA-2/3/4 input is summarized in Table 4-4.

Each retail activity reporting will submit a MEA 2, MEA 3, and MEA 4 card for each product reported. The only exception will be the DFSC activities which have only MEA 2 data. For this DFSC (wholesale) data, there is a 9 in column 13. If all three data cards are not input for all other activities, print a message on the Transaction Proof Listing indicating missing MEA 2, MEA 3, or MEA 4 as appropriate. The exception is for data already in the data base. If the card has the same Reporting Date, DoDAAC, and Product Code as a record on the data base for a prior period, it will be treated as a change (see Section 4.4.3.3.3 below). Accepted transactions will be listed as discussed in 4.4.3.4. This verification applies to all activities other than DFSC.

Upon receipt of MEA 2 data, the following calculation will be made to verify inventory data. Calculate closing book inventory by the following formula: Opening Inventory + Commercial Receipts + DoD Receipts - Issues = Closing Inventory. Compare this calculated inventory to the Closing Inventory (CC 55-61) of the MEA 2. If the difference is more than 1 percent of the calculated closing book inventory, print an information message on the Transaction Proof Listing indicating CLOSING INVENTORY OUT OF BALANCE and continue processing the record.

Every transaction will be checked for duplication of either previous reported data in the current month, or duplication of a data base record (a change transaction). If the record duplicates a record type, DoDAAC, Product Code and Reporting Date of a record in the current month update, an error message indicating DUPLICATE should be reflected. If all 80 columns are duplicated, ignore the second record. Change transactions are discussed in Section 4.4.3.3.3.

If a record being input matches a record on the data base exactly (all 80 columns), ignore the new record and print no error message. If an add transaction being input matches a record on the data base on DoDAAC, Product Code, and Reporting Date, print an error message DUPLICATE. Print this product record error together with the master record. Identify the master record on the listing with a FROM DATA BASE message. Place the input product record on the Rejection File. Section 4.4.3.3.3 will expand further on these "changes".

TABLE 4-4  
DATA EDIT ITEMS

| <u>Card</u> | <u>Data Element</u>          | <u>Card Column</u> | <u>Validity Checks</u>                           |
|-------------|------------------------------|--------------------|--|
| MEA 2       |                              | 22                 | Blank  |
|             | Opening Inventory            | 23-29              | Numeric, equal to last month's Closing Inventory |
|             |                              | 30                 | Blank  |
|             | Issues                       | 31-37              | Numeric, Positive                                |
|             |                              | 38                 | Blank  |
|             | Commercial Receipts          | 39-45              | Numeric, positive                                |
|             |                              | 46                 | Blank  |
|             | DoD Receipts                 | 47-53              | Numeric, positive                                |
|             |                              | 54                 | Blank  |
|             | Closing Inventory            | 55-61              | Numeric, positive                                |
|             |                              | 62-79              | Not used by DEIS I                               |
|             | Action Code                  | 80                 | Blank or C                                       |
| MEA 3       |                              | 22                 | Blank  |
|             | Primary Use                  | 23-28              | Numeric, positive                                |
|             |                              | 29                 | Blank  |
|             | Secondary Use                | 30-35              | Numeric, or blank                                |
|             |                              | 36                 | Blank  |
|             | Tertiary Use                 | 37-42              | Numeric or blank                                 |
|             |                              | 43                 | Blank  |
|             | Downgraded and Losses        | 44-49              | Numeric or blank                                 |
|             |                              | 50                 | Blank  |
|             | Aviation Special             | 51-56              | Numeric, positive or blank                       |
|             |                              | 57-79              | Not used by DEIS I                               |
|             | Action Code                  | 80                 | Blank or C                                       |
| MEA 4       |                              | 22                 | Blank  |
|             | Quantity Issued to Service 1 | 23-27              | Numeric  |
|             |                              | 28                 | Blank  |
|             | Quantity Issued to Service 2 | 29-33              | Numeric  |
|             |                              | 34                 | Blank  |
|             | Quantity Issued to Service 3 | 35-39              | Numeric  |
|             |                              | 40                 | Blank  |
|             | Non-DoD Issues               | 41-45              | Numeric or blank                                 |
|             |                              | 46                 | Blank  |
|             | Intra-Service Transfers      | 47-51              | Numeric or blank                                 |
|             |                              | 52                 | Blank  |
|             | Inter-Service Transfers      | 53-57              | Numeric or blank                                 |
|             |                              | 58-79              | Not used by DEIS I                               |
|             | Action Code                  | 80                 | Blank or C                                       |

All numeric quantity fields on the MEA 2/3/4/ will be validated. If the field is not numeric, print the product record with a message such as FIELD NOT NUMERIC.

Match MEA 2, MEA 3, and MEA 4 data cards for a DoDAAC and Product Code. Once matched data are identified, perform the following mathematical verification of Issue Quantity (CC 31-37) of the MEA 2 card.

Add: Quantity of product used: Primary Use (CC 23-28) + Secondary Use (CC 30-35) + Tertiary Use (CC 37-42) + Downgrade and Loss (CC 44-49) = Product used.

The Primary Use field must be positive; if it is not, print a message to that effect. If the Tertiary Use field is negative, add it from the Secondary Use field and make the Tertiary Use field zero. If the Secondary Use field is negative, add (the negative amount) to the Primary Use field and make the Secondary Use field zero. Negative numbers will contain an over punch in the last column of the data field. The sum of Primary, Secondary, and Tertiary must be greater than or equal to zero.

This quantity of product used will then be added to the quantity of product issued to others: (CC 23-27) + (CC 29-33) + (CC 35-39) + (CC 41-45) + (CC 47-51) + (CC 53-57) of the MEA 4 card to give an issues check. This issue check data must equal (or be within 1 for the Air Force) the Issue quantity (CC 31-37) of the MEA 2 card. This applied only to those activities other than DFSC that are required to submit all three data cards. DFSC product quantities should always be in whole units of a thousand, that is the last three digits of the quantities should be 000.

If the MEA 2 is input from an activity with an Opening Inventory (CC 23-29) not equal to the Closing Inventory of the prior month's submission, print an error message on the Transaction Proof Listing. This message should indicate INVALID OPENING INVENTORY, the prior Closing Inventory, and the date when that inventory was reported.

All product records in error will be printed on the Transaction Proof Listing and written on the Error File. Product records containing an error will update the data base if they have been previously edited and contain an "E" in column 79 (see on-line correction function). The MEA 2, 3, and 4 data will be printed for each product record in error.

In addition to the error information messages explained above, provide for a message such as REVIEW VALUES. This will apply when a 6- or 7-digit quantity is input in the Issues, Receipts-Commercial or Receipts-From DoD fields of MEA 2 or in the aviation field of MEA 3.

Calculate value for the Consumption data element by summing the following MEA 2 and 3 fields: Primary Use + Secondary Use + Tertiary Use + Aviation. The Average Daily Consumption data element is calculated by dividing Consumption by the number of days in the reported month. For DFSC facilities (TAC = 9), Consumption and Average Daily Consumption are zero.

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#### 4.4.3.3.3 Change Transaction Edits

Change transactions (a matching record in the data base for a previous reporting period) may be submitted from the field activities or by the system operator. These transactions must match a record in the data base on DoDAAC, Product Code and Date. If no match is found, print a message beside the transaction on the Transaction Proof Listing stating UNMATCHED. The entire contents of a card will be submitted for a change of a field on that card.

New zero entries will replace existing entries provided that they pass the edits. A set (MEA 2, 3, 4) is not necessary for a change transaction. If the change matches a data base record, overlay the old data with the new data. This overlay will not, however, be accomplished before all of the validation identified for an add transaction is performed. If the change data fail the edits, reject the new data, print the data as an error on the Transaction Proof Listing, and place it on the Rejection File. Included in the validation of data submitted on a change transaction is the mathematical verification of issues between data on the MEA 2 (issues) and the total of consumption (MEA 3) and issues to others (MEA 4). This procedure is explained in 4.4.3.3 for add transaction validation. If the change data to one of the MEAs (2, 3, or 4) results in this mathematical check being out of balance, the change transaction is rejected and printed with the applicable error message.

The change transaction, if being input to MEA 2 for an activity other than a DFSC activity, must also meet the criterion: Opening Inventory + Commercial Receipts + DoD Receipts - Issues = Closing Inventory, plus or minus 1 percent. If the resulting record will not meet this check, the transaction will update the data base, but an error message (as indicated in 4.4.3.3.2) will print on the Transaction Proof Listing.

#### 4.4.3.3.4 Delete Transaction Edits

Delete transactions (CC 1-5 = MEA 2 and CC 80 = D) must match on the DoDAAC, Date, and Product Code. If an exact match does not occur, print the transaction on the Transaction Proof Listing with a message such as UNMATCHED and place the transaction on the Rejection File. If there is an exact match, delete the master record. Beside the transaction on the Transaction Proof Listing, print MASTER DELETED and the data which were deleted.

#### 4.4.3.3.5 Non-Reporting Activities Edits

Those activities (DoDAACs) in the data base for which no data (no MEA cards at all) were received should be printed on the DEIS I Activities Not Reporting listing. A listing will also be provided showing the activities not reporting the same products as reported in the previous months. If the Ship Date is the same as the current reporting period and no data were received, reflect this unreported activity on the listing.

The listings will indicate the Region/CINC Code, State/Country Code, Installation Name, Major Command and Service/Agency Code for each DoDAAC. These data will be taken from the coded information file.

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Should the activity not reporting be one that has not reported for more than the prior month, print all of the coded information data but leave the Product Code field blank. Since no report in the prior month will be available to determine the missing Product Code, there is no assurance that the activity should report a given product. Should a DoDAAC not report for three consecutive months, print a message such as REVIEW HEADER. Activities not reporting for more than three consecutive months will no longer be printed and will be considered closed or inactive.

For those activities reporting changes in products used, the Product Code will be determined as follows: If no data (MEA 2/3/4) are submitted for a Product Code reported on the previous month report, reflect this unreported product along with the closing inventory of the previous month.

The above will apply to all Service/agency activities in the coded information file. DFSC activities (TAC=9) will have no MEA 3 or MEA 4 data submission, but should be listed as non-reporting activities if the MEA 2 data were not submitted.

#### 4.4.3.3.6 Conversion

Data will be converted from MEA card format to the format required for INQUIRE data base updating.

#### 4.4.3.4 Outputs

There are seven outputs from this function:

1. Records which have passed the data edits and are converted to INQUIRE data base update format will be written on the Accepted Records File (in the data base). As many as 2000 records (MEA 2/3/4 combination) may pass the data edits at one time.
2. Records which have passed the data edits will be printed on the Accepted Records Listing in DoDAAC order within each Service. A sample of this report layout is given in Figure 4-6.
3. Records which fail the data edits will be written on the Rejection File. As many as 1000 records may fail the data edits at one time. Because of this volume, this file should be arranged for selective as well as sequential access.
4. Records which fail the data edits will be printed on the Transaction Proof Listing in DoDAAC order within each Service. This listing will contain the images of the records on the Rejection File and the appropriate error messages (specified in 4.4.3.3). Multiple error messages may be printed. A sample of this report layout is also given in Figure 4-6.
5. Activities which did not submit data will be reported on the DEIS I Monthly Activities Not Reporting listing. Page breaks are needed only when the print limitation of the page is reached. The total number of

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#### **ACCEPTED RECORDS LISTING**

activities not reporting, by MEA type, will be printed at the end of the report. A sample of this report layout is given in Figure 4-7.

6. Activities not reporting the same Product Codes as reported in the prior month will be reported on the DEIS I Activities Reporting Product Changes listing.

This listing will be developed by comparing data reported for a DoDAAC in the current month to data reported for that same DoDAAC in the prior month. If a DoDAAC reported a product in the prior month, but not in the current month, that DoDAAC and product will be printed on the listing along with the error message NON-SUBMISSION. The type of data not submitted will also be identified, i.e., MEA 2, MEA 3 and/or MEA 4. If a DoDAAC reports a product not reported in the prior month, the line will be printed as above but will be identified as a new submission. Page breaks are needed only when the print limitation of the page is reached. A sample of this report layout is shown in Figure 4-8.

7. DEIS I Error Statistics giving the number of times each error message is printed will be printed at the end of each edit run. This listing will be sent to the system operator. A sample of this report layout is given in Figure 4-9.

#### 4.4.4 Update Data Base

This function is performed mainly through the generalized DBMS capabilities and provides for applying records with correct data to the data base. The data base update will occur at least once a month. Since there will usually be late reporters and changes, the update will probably occur six times each month.

##### 4.4.4.1 Purpose

The purpose of this function is to add, change, and delete data in the data base. This includes the ability to add new data fields or delete existing ones by reorganizing the data base. Fields will be added or deleted infrequently and only after consultation with AFDSC. Records with data items found to be in error during the update will be placed on the Rejection File, for on-line editing of the error records.

##### 4.4.4.2 Data Definition

The data items input to this function are shown in Table 4-5. A more detailed description of each data item can be found in Appendix A.

##### 4.4.4.3 Processing Logic

Those records that passed the edits described in 4.4.3 will be applied to the DEIS I data base in batch mode by means of the DBMS. The input records will be saved as a transaction log. Any data rejected by INQUIRE at this stage will also be placed on the Rejection File for subsequent data correction.

**FIGURE 4-7**  
**DEIS I ACTIVITIES NOT**

**DEIS I ACTIVITIES WITH PRODUCT CHANGES**

FIGURE 4-9

DEIS I ERROR STATISTICS

TABLE 4-5  
DATA BASE UPDATE DATA ITEMS

| <u>Data Dictionary Element Number</u> | <u>Element Number</u> | <u>Comments</u>  |
|---------------------------------------|-----------------------|--|
| 2                                     | AVG DAY               | Average Daily Consumption                              |
| 9                                     | DODAAC                |  |
| 29                                    | RPTDATE               | Reporting Date (Month, Year)                           |
| 21                                    | PRODCODE              | Product Code   |
| 19                                    | OPENINV               | Opening Inventory                                      |
| 15                                    | ISSUES                |  |
| 4                                     | COMMER                | Commercial Receipts                                    |
| 11                                    | DODRCPT               | DoD Receipts   |
| 3                                     | CLOSINV               | Closing Inventory                                      |
| 22                                    | PRIMARY               | Primary Use  |
| 30                                    | SECOND                | Secondary Use  |
| 39                                    | THIRD                 | Tertiary Use   |
| 5                                     | CONSUM                | Total Consumption                                      |
| 16                                    | LOSSD                 | Downgraded and Losses                                  |
| 1                                     | AVIATION              | Aviation Special, Credit Cards, Form 15/44, Into-Plane |
| 23                                    | QUAN1                 | Quantity Issued to Service 1                           |
| 24                                    | QUAN2                 | Quantity Issued to Service 2                           |
| 25                                    | QUAN3                 | Quantity Issued to Service 3                           |
| 12                                    | INTERTRAN             | Interservice Transfers                                 |
| 18                                    | NONDOD                | Non-DoD Issues   |
| 13                                    | INTRATRAN             | Intraservice Bulk Transfers                            |
| 7                                     | DTEUP                 | Date of Update   |
| 6                                     | CORRECT               | Correction Code  |
| 33                                    | SERVICE3              | Service Use MEA 3                                      |
| 34                                    | SERVICE4              | Service Use MEA 4                                      |

#### 4.4.4.4 Output

The outputs of this function are an updated DEIS I data base and the Rejection File. The data to be written on the Rejection File may be converted to MEA card image format for ease of user correction. The error messages will also be placed on the Transaction Proof Listing.

#### 4.4.5 Maintain Tables

Part of the DEIS I data base will contain clear text for coded data and distribution lists for each report. Maintenance of these tables will be controlled through AFDSC.

##### 4.4.5.1 Purpose

This function will provide for maintenance of tables to translate a DoDAAC to its Installation Name and to translate Service Codes, Product Codes, Major Command Codes, Region/CINC and State/Country Codes. These codes ensure that when summaries by major command, region, state, or Service are required, the appropriate accumulations can be performed. Maintenance of distribution lists for each of the DEIS I reports on this file will help ensure that all persons receive their reports promptly.

##### 4.4.5.2 Data Definition

The data items maintained by this function are input on-line. A more detailed description of each data item is shown in Appendix A. The current DEIS maintains a Header File on magnetic tape that contains DoDAAC-related data. Table 4-6 gives the layout of this tape. The record length is 80, and the blocking factor is 20. The tapes are 7 track, unlabelled, 800 BPI.

##### 4.4.5.3 Processing Logic

Queries, translations, and updates to that part of the DEIS I data base containing coded information are supported through AFDSC.

Table 4-7 contains the edit criteria used for adding new data or validating changes to existing data. A DoDAAC is never deleted from the file, but it may be marked as inactive. Ships may become inactive when they are drydocked. The system operator may insert an expected date of return to service for these DoDAACs. To inactivate coded information about an installation, the DoDAAC must match one on the file. Table 4-8 contains translations of Region Codes and State/Country Codes. Table 4-9 contains translations of Service/Agency Codes. Product Code translations are in Table 4-10. Distribution Codes are in Table 4-11.

Actual update of the data base need not be completed on-line. An on-line update will be included in the macros, as a user option, since timely reports are a system requirement and correct codes are needed before any reports are run. Figure 4-10 shows the major processing steps of this function.

TABLE 4-6  
HEADER FILE DATA LAYOUT

| <u>DATA NUMBER</u> | <u>DATA ELEMENT DESCRIPTION</u> | <u>HEADER FILE POSITION</u> | <u>COMMENTS/ VALUE</u>                    |
|--------------------|---------------------------------|-----------------------------|---|
| NA                 | Document Identifier             | 1-3                         | MEA                                       |
|                    | Blank                           | 4                           |   |
| NA                 | Card Code                       | 5                           | 1   |
|                    | Blank                           | 6                           |   |
| 9                  | DoDAAC                          | 7-12                        |   |
| 38                 | TAC                             | 13                          | 9 or blank                                |
|                    | Blank                           | 14                          |   |
| 28                 | Region Code                     | 15-16                       |   |
|                    | Blank                           | 17                          |   |
| 37                 | State Code                      | 18-19                       |   |
|                    | Blank                           | 20                          |   |
| 14                 | Installation Name               | 21-60                       |   |
| 17                 | Major Command                   | 61-73                       |   |
|                    | Blank                           | 74-78                       |   |
| 32                 | Service Code                    | 79                          |   |
| 10                 | DoDAAC Delete Code              | 80                          | blank, A(add),<br>C(Change),<br>D>Delete) |

TABLE 4-7  
CODED DATA BASE ITEMS

| Data Element Number | Data Element Description | EDIT Criteria/Comments   |
|---------------------|--------------------------|--|
| 9                   | DoAAC                    | Cannot be blank or zero. Must match a DoAAC in the file.                                   |
| 10                  | DoDC                     | D or blank, DoAAC delete code  |
| 38                  | TAC                      | 9 or blank   |
| 28                  | Region Code              | Cannot contain blanks or be zero. Must match a code in Table 4-6. Two characters long.     |
| 37                  | State/Country Code       | Cannot contain blanks or be zero. Must match a code in Table 4-6. Two characters long.     |
| 14                  | Installation Name        | Cannot contain only blanks.  |
| 17                  | Major Command            | Cannot contain only blanks.  |
| 32                  | Service/Agency Code      | Must be A, B*, F, H**, N, M, D, S, or T.   |
| 35                  | Shipdate                 | Blank or numeric; month, year ship is to be returned to service                            |
| 21                  | Product Code             | Cannot contain blanks or zeros. Must match a code in Table 4-8. Three characters long.     |
| 8                   | Distribution Code        | Cannot contain blanks or zeros. Table 4-9 contains the valid codes and their translations. |

\* This code is G on the existing Header File and must be converted to B.

\*\* This code is V on the existing Header File and must be converted to H.

TABLE 4-8

REGION/STATE/COUNTRY CODES\*

| REGION/CINC          | REGION CODE | STATE/COUNTRY CODE |
|----------------------|-------------|--------------------|
| REGION 1             | 01          |                    |
| Connecticut          | 01          | 09                 |
| Maine                | 01          | 23                 |
| Massachusetts        | 01          | 25                 |
| New Hampshire        | 01          | 33                 |
| Vermont              | 01          | 50                 |
| Rhode Island         | 01          | 44                 |
| REGION 2             | 02          |                    |
| New Jersey           | 02          | 34                 |
| New York             | 02          | 36                 |
| REGION 3             | 03          |                    |
| Delaware             | 03          | 10                 |
| District of Columbia | 03          | 11                 |
| Maryland             | 03          | 24                 |
| Pennsylvania         | 03          | 42                 |
| Virginia             | 03          | 51                 |
| West Virginia        | 03          | 54                 |
| REGION 4             | 04          |                    |
| Alabama              | 04          | 01                 |
| Florida              | 04          | 12                 |
| Georgia              | 04          | 13                 |
| Kentucky             | 04          | 21                 |
| Mississippi          | 04          | 28                 |
| North Carolina       | 04          | 37                 |
| South Carolina       | 04          | 45                 |
| Tennessee            | 04          | 47                 |
| REGION 5             | 05          |                    |
| Illinois             | 05          | 17                 |
| Indiana              | 05          | 18                 |
| Michigan             | 05          | 26                 |
| Minnesota            | 05          | 27                 |
| Ohio                 | 05          | 39                 |
| Wisconsin            | 05          | 55                 |

\* The region table will have the region code and the region/CINC name.  
 The state table will have the state code, the region code and the state name.

TABLE 4-8 (Cont.)

| REGION/CINC              | REGION CODE | STATE/COUNTRY CODE |
|--------------------------|-------------|--------------------|
| REGION 6                 | 06          |                    |
| Arkansas                 | 06          | 05                 |
| Louisiana                | 06          | 22                 |
| New Mexico               | 06          | 35                 |
| Oklahoma                 | 06          | 40                 |
| Texas                    | 06          | 48                 |
| REGION 7                 | 07          |                    |
| Iowa                     | 07          | 19                 |
| Kansas                   | 07          | 20                 |
| Missouri                 | 07          | 29                 |
| Nebraska                 | 07          | 31                 |
| REGION 8                 | 08          |                    |
| Colorado                 | 08          | 08                 |
| Montana                  | 08          | 30                 |
| North Dakota             | 08          | 38                 |
| South Dakota             | 08          | 46                 |
| Utah                     | 08          | 49                 |
| Wyoming                  | 08          | 56                 |
| REGION 9                 | 09          |                    |
| Arizona                  | 09          | 04                 |
| California               | 09          | 06                 |
| Nevada                   | 09          | 32                 |
| REGION 10                | 10          |                    |
| Idaho                    | 10          | 16                 |
| Oregon                   | 10          | 41                 |
| Washington               | 10          | 53                 |
| CINCs                    |             |                    |
| CANADA & GREENLAND       | **          |                    |
| Western Canada           | 3X          | CA                 |
| Argentia, Eastern Canada | 3D          | CA                 |
| Greenland                | 3E          | GL                 |
| CINCAL                   |             |                    |
| Alaska                   | 1A          | 02                 |
| Aleutian Islands         | 1B          | 02                 |

\*\* When multiple codes appear in a CINC, each code will have its own region name.

TABLE 4-8 (Cont.)

| <u>REGION/CINC</u>   | <u>REGION CODE</u> | <u>STATE/COUNTRY CODE</u> |
|--|--------------------|---------------------------|
| <b>CINCSOU</b>   |                    |                           |
| Canal Zone   | 6A                 | PQ                        |
| Easter Island (Chile)  | 6A                 | CI                        |
| <b>CINCEUR</b>   |                    |                           |
| Belgium  | 4K                 | BE                        |
| Crete (Greece)   | 4Q                 | GR                        |
| Cyprus   | 4Q                 | CY                        |
| France   | 4M                 | FR                        |
| Germany  | 4K                 | GE                        |
| Italy  | 4P                 | IT                        |
| Malta  | 4S                 | MT                        |
| Morocco  | 4R                 | MO                        |
| Netherlands  | 4K                 | NL                        |
| Norway   | 4J                 | NO                        |
| Sardinia   | 4P                 | SD                        |
| Sicily   | 4P                 | SI                        |
| Spain  | 4N                 | SP                        |
| Portugal   | 4N                 | PO                        |
| Turkey   | 4Q                 | TU                        |
| United Kingdom (Great Britain<br>& Northern Ireland, including<br>Channel Islands) | 4L                 | UK                        |
| <b>MISCELLANEOUS CINC</b>  |                    |                           |
| Ceylon   | 7F                 | CE                        |
| Eritrea (Ethiopia)   | 7C                 | ET                        |
| Lebanon  | 7D                 | LE                        |
| Saudi Arabia   | 7D                 | SA                        |
| <b>CINCLANT</b>  |                    |                           |
| Ascension Island   | 2R                 | SH                        |
| Azores   | 2K                 | AZ                        |
| Bermuda  | 2D                 | BD                        |
| Cuba   | 2C                 | CU                        |
| Haiti  | 2C                 | HA                        |
| Iceland  | 2H                 | IC                        |
| Puerto Rico  | 2C                 | RQ                        |
| Virgin Islands   | 2C                 | VQ                        |
| West Indies--includes  |                    |                           |
| Leeward Islands  | 2C                 | LW                        |
| Windward Islands   | 2C                 | WI                        |
| French West Indies   | 2C                 | FW                        |
| Jamaica  | 2C                 | JM                        |
| Dominican Republic   | 2C                 | DR                        |
| Netherlands West Indies  | 2C                 | NA                        |
| Trinidad   | 2C                 | TD                        |

TABLE 4-8 (Cont.)

| <u>REGION/CINC</u>                 | <u>REGION CODE</u> | <u>STATE/COUNTRY CODE</u> |
|------------------------------------|--------------------|---------------------------|
| CINCPAC                            |                    |                           |
| Australia                          | 5E                 | AS                        |
| Diego Garcia                       | 5S                 | MR                        |
| Hawaii                             | 5N                 | 15                        |
| Japan                              | 5H                 | JA                        |
| Johnston Island                    | 5N                 | JQ                        |
| Korea                              | 5H                 | KS                        |
| Laos                               | 5D                 | LA                        |
| Marianas Islands                   | 5G                 | MS                        |
| Marshall Islands (Pacific Islands) | 5B                 | TQ                        |
| Midway Island                      | 5N                 | MQ                        |
| New Zealand                        | 5V                 | NZ                        |
| Philippines                        | 5C                 | RP                        |
| Ryukyu Islands                     | 5H                 | YQ                        |
| Samoa Islands                      | 5F                 | AQ                        |
| Taiwan                             | 5C                 | TW                        |
| Volcano Islands                    | 5G                 | BJ                        |
| Wake Island                        | 5F                 | WQ                        |
| South Vietnam                      | 5D                 | VS                        |
| Thailand                           | 5D                 | TH                        |
| Malaysia                           | 5D                 | MY                        |
| Singapore                          | 5D                 | SN                        |
| VESSELS                            | 98                 | 98                        |

TABLE 4-9  
SERVICE/AGENCY CODES

| <u>Code</u> | <u>Translation*</u> |
|-------------|---------------------|
| A           | Army                |
| B           | Army National Guard |
| F           | Air Force           |
| H           | Air National Guard  |
| N           | Navy                |
| M           | Marine Corps        |
| D           | DFSC                |
| S           | DLA                 |
| T           | Other DoD Agencies  |

\* When summarizing Army, include both "A" and "B"  
When summarizing Air Force, include both "F" and "H"

TABLE 4-10

PRODUCT CODES

| <u>Aviation Gasoline*</u>  | <u>Distillates</u>          |
|----------------------------|-----------------------------|
| 130                        | DFM                         |
| 131                        | DFW                         |
| 135                        | DF1                         |
| 145                        | DF2                         |
| 887                        | DFA                         |
| 996                        | DFB                         |
|                            | NDF                         |
| <u>Jet Fuel - JP4</u>      | DFS                         |
| JP4                        | <u>Fuel Oil Distillates</u> |
| JR1                        | FS1                         |
| JAA                        | FS2                         |
| JAB                        | KSN                         |
| JTS                        | KSD                         |
| JAI                        |                             |
| <u>Jet Fuel - JP5</u>      | <u>Fuel Oil Residuals</u>   |
| JP5                        | FS4                         |
| JR2                        | FS5                         |
|                            | FS6                         |
| <u>Jet Fuel - JP8</u>      | FSL                         |
| JP8                        | <u>Lubricating Oils</u>     |
| <u>Residuals</u>           | LA2                         |
| NSF                        | <u>Gasohol</u>              |
| <u>Automotive Gasoline</u> | GUS                         |
| MG1 MUR                    | GUP                         |
| MG2 MUP                    | GUR                         |
| MGP MLL                    | <u>Slop</u>                 |
| MGR MLP                    | SLP                         |
| MGU MLR                    |                             |
| MUS                        |                             |
|                            | <u>Other</u>                |
|                            | SII                         |

\*Each product code has a Product Category name associated with it.

TABLE 4-11  
DEIS I REPORT DISTRIBUTION CODES

| <u>Code</u> | <u>Report Name</u>                   | <u>Report Recipients</u>  |
|-------------|--------------------------------------|---------------------------|
| Monthly     |                                      |                           |
| 1M01        | Installation Summary*                | (a)                       |
| 1M02        | Air Force Detail Summary             | OASD(MRA&L), Air Force    |
| 1M03        | Army Detail Summary                  | OASD(MRA&L), Army         |
| 1M04        | Navy Detail Summary                  | OASD(MRA&L), Navy         |
| 1M05        | MC Detail Summary                    | OASD(MRA&L), Marine Corps |
| 1M06        | DLA Detail Summary                   | OASD(MRA&L), DLA          |
| 1M07        | DoD Detail Summary (DIS, DNA)        | OASD(MRA&L), DIS, DNA     |
| 1M08        | DFSC Detail Summary                  | OASD(MRA&L), DFSC         |
| 1M09        | Activities Not Reporting             | OASD(MRA&L), DFSC-CB      |
| 1M10        | Activities Reporting Product Changes | OASD(MRA&L), DFSC-CB      |
| 1M11        | Petroleum Product Summary**          | (b)                       |
| 1M12        | Consumption Summary                  | (b)                       |

(a) DFSC, Naval War Research Center/Stanford Research Institute (NWRC), OJCS, Atlantic Command, Panama Canal (Navy), USEUCOM, DALO-TSE-A, AFLGY/F, OASD(MRA&L), USAGMPA, AFDSC, Naval Ship R&D Center.

(b) DFSC-CE, AFLGY/P, AFBCC, AFCOS/LGRX, OASD(MRA&L), DA, USAGMPA, CINCPAC, CNET, CINCLANT, CINCEUR, CNO OP-41, NWRC, USMC(HQ), DNA, DLA-WS, USAMSSA, Naval Ship R&D Center

\* Includes the following reports (in sequence):

Cumulative Worldwide Category Summary; Cumulative Worldwide Summary Report; Cumulative CONUS Summary Report; Monthly Worldwide Category Summary; Monthly Worldwide Summary Report, Monthly CONUS Summary Report; Monthly Summary by DOE Region/CINC, Region Summary Totals; Monthly Summary by DOE Region/CINC, Vessel Summary Totals; Monthly Summary by DOE Region/CINC, State Summary Totals; and Monthly Installation Summary. As for monthly overall summaries, a separate report is provided for each Service/Agency.

\*\* As for the Overall Summary reports, a separate report is provided for each Service/Agency.

TABLE 4-11  
DEIS I REPORT DISTRIBUTION CODES (Continued)

| <u>Code</u>      | <u>Report Name</u>                        | <u>Report Recipients</u>           |
|------------------|---|------------------------------------|
| <b>Quarterly</b> |   |                                    |
| 1Q01             | Installation Summary*                     | (c)                                |
| 1Q02             | Consumption Summary                       | OASD(MRA&L), Services,<br>Agencies |
| 1Q03             | Army Consumption Detail<br>& Summary      | OASD(MRA&L), Army                  |
| 1Q04             | Air Force Consumption<br>Detail & Summary | OASD(MRA&L), Air Force             |
| 1Q05             | Navy Consumption<br>Detail & Summary      | OASD(MRA&L), Navy                  |
| 1Q06             | Marine Corps Detail<br>& Summary          | OASD(MRA&L) Marine Corps           |
| 1Q07             | DLA Detail & Summary                      | OASD(MRA&L), DLA                   |
| 1Q08             | DoD Detail & Summary<br>(DIS, DNA)        | OASD(MRA&L), DIS, DNA              |
| 1Q09             | DFSC Detail & Summary                     | OASD(MRA&L), DFSC                  |
| 1Q10             | Conservation Performance<br>Report        | OASD(MRA&L), Services,<br>Agencies |
| 1Q11             | Petroleum Product Summary                 | OASD(MRA&L), Services,<br>Agencies |

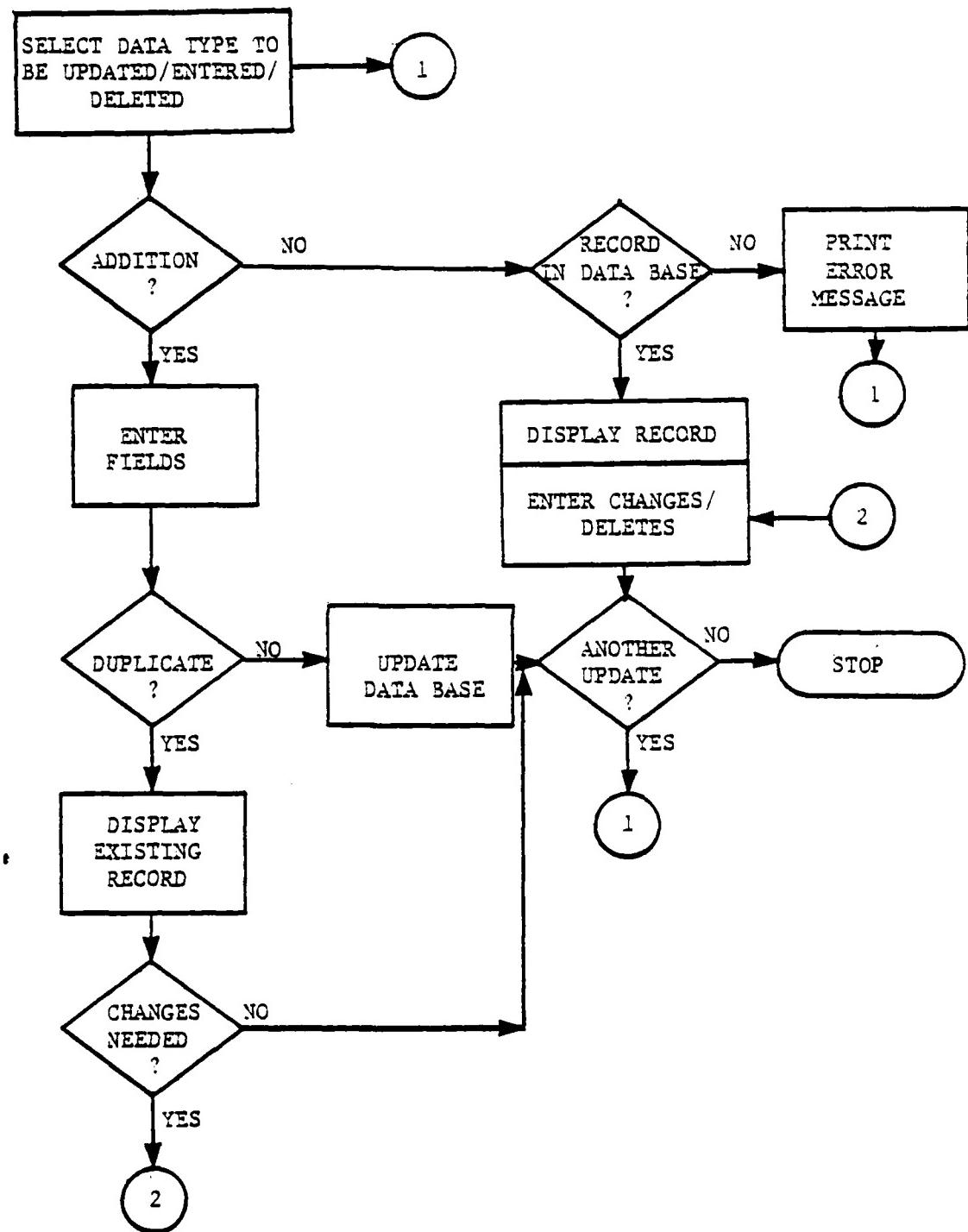
(c) DFSC-CB, OASD(MRA&L), AFLGY/F, DA(DCS/L), USAGMPA, CINCPAC, CINCLANT, CINCEUR, CNO OP-41, NWRC, USMC(HQ), DAL-O, OJCS, Naval Facilities Engineering Command

\* Includes the following reports (in sequence):

Quarterly Worldwide Category Summary; Quarterly Worldwide Summary Report; Quarterly CONUS Summary Report; Quarterly Summary by DOE Region/CINC, Region Summary Totals; Quarterly Summary by DOE Region/CINC. Vessel Summary Totals; Quarterly Summary by DOE Region/CINC. State Summary Totals; and Quarterly Installation Summary.

FIGURE 4-10

MAINTAIN DEIS I DATA



#### 4.4.5.4 Outputs

Outputs from this function are updated coded information tables. In addition, on request through the user macro, a copy of any category of coded information (data elements in Table 4-7) may be requested. At the user's option, the output from this request may be printed or displayed at the user's terminal or directed to a printer at AFDSC for mailing to the user. Listings by Installation Name will be arranged in alphabetical sequence by installation and will contain the following fields:

Installation Name  
Major Command  
DoDAAC  
Service/Agency Code  
Region Code  
State/Country Code

Listings by DoDAAC will be in alphabetical sequence by DoDACC and will contain the fields listed above, DoDAAC being printed first on the line rather than Installation Name. For both of these reports, one line will be skipped when the first letter in the Installation Name changes.

Listings of the other codes will be in the order specified in Tables 4-8 through 4-11. For all the reports, page breaks are required only when the page limit is reached.

#### 4.4.6 Perform On-Line Data Entry of Corrections

This function is performed only through the system operator (DFSC-CB). The system operator will have both a hard copy listing of the records in error (with an error message) and access to the Rejection File. The Rejection File will be in the same order as on the hard copy, but processing may begin at any point in the file. All errors or questionable data from the edit and convert data and data base update functions will be on one Rejection File. Records which are changed (or marked as changed) during the correction process will contain a "C" in column 80 of each card image believed to be in error. All records will undergo subsequent reediting, and those card images containing an "E" in column 79 will update the data base even if the edit fails (as specified in 4.4.4). Records can be completely deleted or added through this function.

##### 4.4.6.1 Purpose

This function provides an easy-to-use, fast method to correct errors or add records and submit the corrected data for further processing. Multiple users (three or four) may be correcting different segments of data on the Rejection File at the same time. (Corrections are now done by Service). The capability of concurrent updating of the Correction File(s) must exist for the system operator.

#### 4.4.6.2 Data Definition

The data items input to this function usually are the MEA card images described in Table 4-3 and in Appendix A. Data relating to bulk transfers and sales by DFSC are also processed by this function. Data items for DFSC activities are the same as the MEA 2 data shown in Table 4-3.

#### 4.4.6.3 Processing Logic

All records in error will be on the Rejection File. Each record selected will be displayed for the system operator to correct, to mark as correct with an "E", or to enter a "C" so that further editing may again reject the record. All corrected records from the Rejection File will be placed on the Correction File. The data in the Rejection File are then deleted so that data from subsequent editing will be the only data on the Rejection File. Figure 4-11 gives the major processing steps of this function.

#### 4.4.6.4 Output

The output of this function is a Correction File(s) of MEA format records and other input records. The data on this file are described in 4.4.6.2.

### 4.4.7 Archive Data Base

After the time-sensitive processing of DEIS I data is complete, data base maintenance in the form of archiving will be performed. This archiving entails creating quarterly summaries for data older than 15 months and deleting detail data no longer needed on-line from the data base. Figure 4-12 shows a schema of the data base before and after archival.

#### 4.4.7.1 Purpose

The archival process provides a method for keeping all needed DEIS I data on-line without overloading the data base to the point where processing time and data storage requirements are excessive. Monthly detail data are needed for the baseline (1975) and for the most recent 13-month period. Quarterly summary data are kept for the 5 years prior to the most recent 13-month period. Data deleted from the on-line data base will be kept off-line in a format that allows easy creation of a data base for the specified time period. After monthly data have been archived, only the quarterly (on-line) data will be updated. In addition, this function will supplement AFDSR procedures to back up the on-line data base.

#### 4.4.7.2 Data Definition

Data items used in this function include the date (for selection purposes) and all data elements in the data base. The data are transferred to off-line storage and deleted from on-line storage. First, however, new quarterly totals are calculated by summing all the fields in the data base for a given DoDAAC (Command, Service, Region, and Country fields are fixed identification fields) Product Code, and the given 3-month period (quarter). Average daily consumption for the quarterly records is the sum of the average daily consumptions in the quarter divided by three. The data items are described in Appendix A.

Rev. A

FIGURE 4-11

DEIS I ON-LINE CORRECTIONS

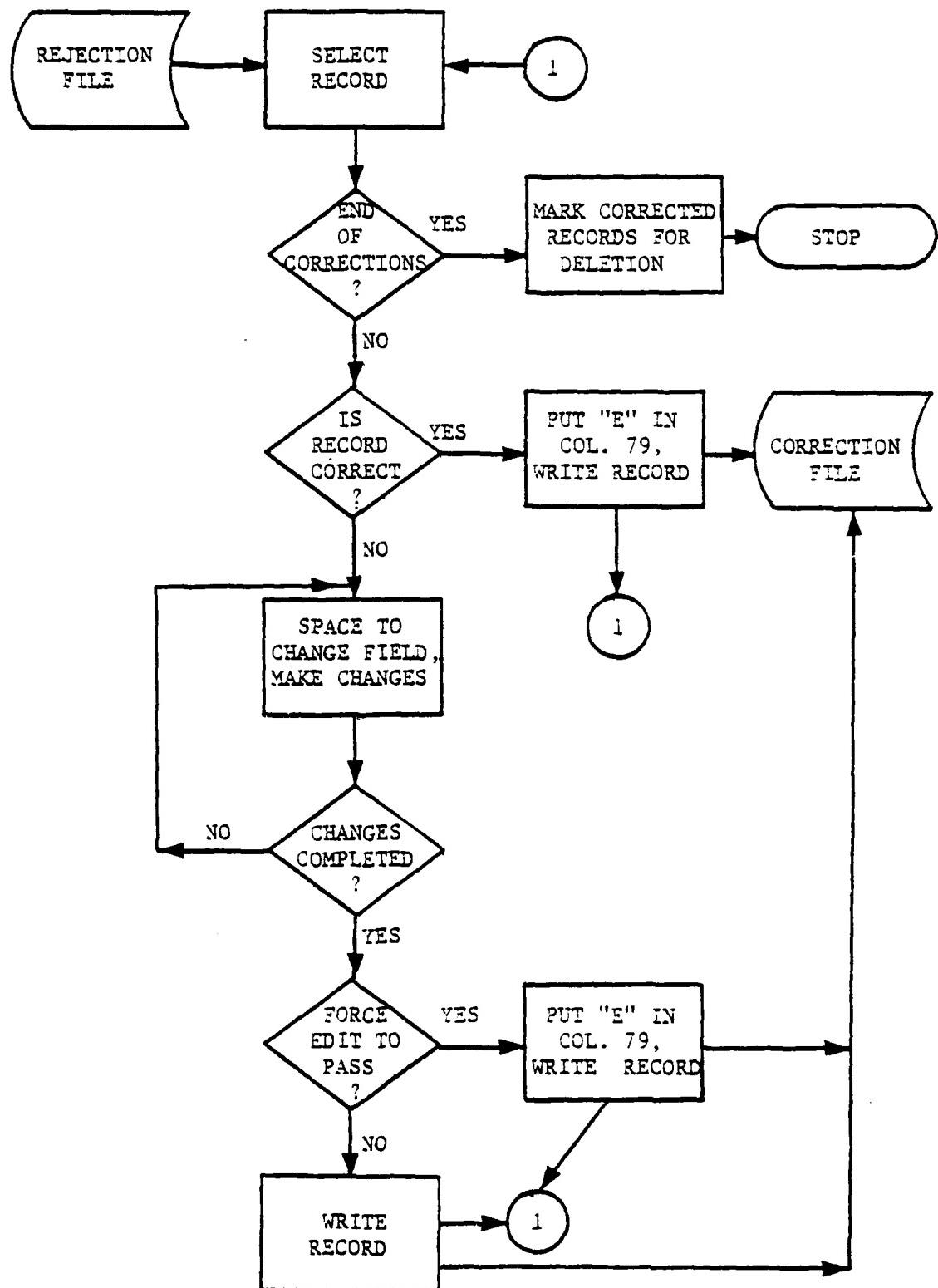


FIGURE 4-12

SCHEMA OF DB BEFORE AND

AFTER ARCHIVAL

Case 1—Data to be archived are for a month at the beginning of a quarter—done after update for month 3 of a quarter.

Before

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       |       | Monthly Data (15 months) |       |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|-------|--------------------------|-------|-----|-------|-------|
| 01/75              | ... | 12/75 | Q1/75               | ... | Q4/79 | 10/79 | 11/79                    | 12/79 | ... | 11/80 | 12/80 |
| To Be Removed      |     |       |                     |     |       |       |                          |       |     |       |       |

After

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       |       | Monthly Data (13 months) |     |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|-------|--------------------------|-----|-----|-------|-------|
| 01/75              | ... | 12/75 | Q2/75               | ... | Q1/80 | 01/80 | ...                      | ... | ... | 12/80 | 01/80 |
| Added              |     |       |                     |     |       |       |                          |     |     |       |       |

Case 2—Data are for month 1 or 2 of a quarter.

Before

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       |       | Monthly Data (13 months) |     |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|-------|--------------------------|-----|-----|-------|-------|
| 01/75              | ... | 12/75 | Q2/75               | ... | Q1/80 | 01/80 | 02/80                    | ... | ... | 12/80 | 01/81 |

After

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       |       | Monthly Data (14 months) |     |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|-------|--------------------------|-----|-----|-------|-------|
| 01/75              | ... | 12/75 | Q2/75               | ... | Q1/80 | 01/80 | ...                      | ... | ... | 01/81 | 02/81 |
| Added              |     |       |                     |     |       |       |                          |     |     |       |       |

#### 4.4.7.3 Processing Logic

Monthly data are placed in archival storage at the end of a quarter. Data for months one and two of a quarter will simply be added to the data base. Thus there will be 14 months of monthly data on-line after data for the first month of a quarter has been added. There will be 15 months of data on-line after data for the second month of a quarter has been added to the data base. There will be 13 months of data on-line after data for the third month of a quarter has been added to the data base and the oldest three months of monthly data has been accumulated into quarterly data.

Quarterly data for that quarter are developed by adding all fields (except for identification fields). The reporting date/ month field will be changed to reflect Q1, Q2, Q3, or Q4 of the fiscal year. All the monthly data items for that DoDAAC can then be written to the archival file and deleted from the on-line data base. If quarterly data are to be taken off-line, the data will simply be copied to archival storage and deleted from the on-line data base. Five years of quarterly data will be maintained in the on-line data base and then quarterly data will also be archived. It is expected that INQUIRE facilities will be used for this function so that creating an INQUIRE data base containing those months or quarters of the archival data can be completed with a minimum of trouble. The request procedure for restoring archival data will be contained in the DEIS user's manual. Figure 4-13 shows the major processing steps of this function.

#### 4.4.7.4 Outputs

The output of this function is an updated data base and an INQUIRE format archival file of the records purged.

### 4.4.8 Preformatted Reports

This function will produce all the existing regular DEIS I reports. The reports may be prepared through the host language interface with the DBMS.

#### 4.4.8.1 Purpose

DEIS I preformatted reports include all the regularly scheduled reports used by DEIS users. As new reports or changes to existing reports are identified, reports run for regular distribution to one or more persons may be specified as preformatted. Ad hoc reports that become regularly scheduled may be re-programmed by means of the host language interface to save processing costs.

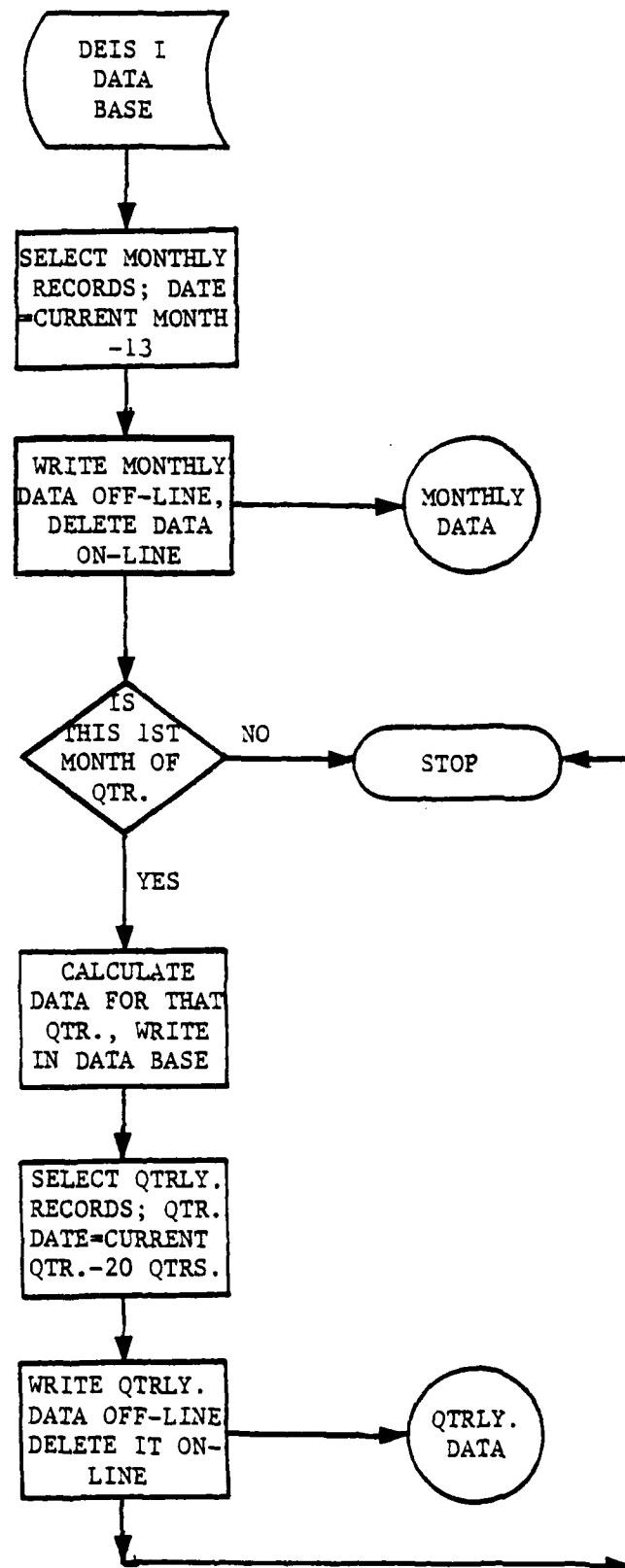
#### 4.4.8.2 Data Definition

All fields contained in the data base (see Appendix A) are used in producing the reports. Except for some code translation and totals in some fields, data from the data base are printed on reports unchanged.

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FIGURE 4-13

ARCHIVE DEIS I DATA BASE



#### 4.4.8.3 Processing Logic

The processing logic for each report is provided in the following paragraphs. A list of all product codes and their translations will be provided on a separate page at the beginning of each set (booked) of reports, along with definitions of primary, secondary, and tertiary product uses for each Service. Figure 4-14 shows a sample of this header page.

##### 4.4.8.3.1 Monthly, Quarterly, and Cumulative Consumption Summaries

The DEIS I Monthly, Quarterly, and Cumulative Consumption Summaries report product and Service consumption data for a specified month, quarter, or fiscal year-to-date. These reports require reference to the DEIS I data base, coded information, and some calculations.

Table 4-12 lists the data elements reported on the consumption reports and their sources. For purposes of these reports, all consumption data reported by an individual Service or agency for a specific Product Code will be summarized on one line of the report. The major sequence of the report is by Product Code. Services and agencies are listed within each Product Code. In addition, major command totals are given for each Service. Figures 4-15, 4-16, and 4-17 show the report layout for the monthly, quarterly, and fiscal year-to-date consumption reports. There is a subtotal for each product for each Service Code, as well as a grand total for the report. The sum of all the Total Consumptions for each product must equal the sum of all the detail consumptions (Primary, Secondary, Tertiary, and Aviation). The same verification will be done for the grand total. At the beginning of these reports, category summary pages will be printed. The product categories shown in Table 4-10 will be summarized for each Service.

The following paragraphs explain the calculation of the Received From columns of the report, which differ according to the Service or agency being summarized.

If the Army is being reported, the first Received From column (Quantity Issued Service 1) will be Air Force, the second (Quantity Issued 2) will be Navy, and the third (Quantity Issued 3) will be Marine Corps.

If the Navy is being reported, the first Received From column will be Army, the second Air Force, and the third Marine Corps.

If the Marine Corps is being reported, the first Received From column will be Army, the second will be Air Force, and the third will be Navy.

If the Air Force is being reported, the first Received From column will be Army, the second will be Navy, and the third will be Marine Corps.

To compute the quantity of product to be reported in each of the Received From columns, it will be necessary to summarize all of the Quantity Issued fields for the period being reported.

FIGURE 4-14

DEIS I REPORT HEADER

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TABLE 4-12  
CONSUMPTION REPORT DATA

| Data Element Number | Data Element Description  | Source  |
|---------------------|---------------------------|---|
| 21                  | Product Code              | Data base (DB)  |
| 31                  | Service/Agency            | DB and decoded for printout   |
| 22                  | Primary                   | DB, accumulated   |
| 30                  | Secondary                 | DB, accumulated   |
| 39                  | Tertiary                  | DB, accumulated   |
| 1                   | Aviation                  | DB, accumulated   |
| 23                  | Quantity Issued Service 1 | DB, accumulated by Service use<br>Alias - Received From Field 1   |
| 24                  | Quantity Issued Service 2 | DB, accumulated by Service use<br>Alias - Received From Field 2   |
| 25                  | Quantity Issued Service 3 | DB, accumulated by Service use<br>Alias - Received From Field 3   |
| 5                   | Total Consumption         | DB, accumulated   |
| 2                   | Average Daily Consumption | Calculated,<br>Total Consumption ÷ days in month<br>Total Consumption ÷ days in quarter<br>Total Consumption ÷ days in FY to date |

For example, if the Service/agency within the Product Code is Army, the following summaries must be made. All Quantity Issued data reported by the Navy must be reviewed, and every transaction indicating a quantity of product issued to the Army (Quantity Issued to Service 1 by the Navy) must be summarized. This quantity will then be reported as being Received From the Navy on the appropriate Army line on the consumption report.

The above calculation will be required to determine Army receipts from the Air Force and from the Marines. \*\* Caution: Quantity Issued to the Army by the Navy, Marines and Air Force is always Quantity Issued to Service 1. However, when receipts from the other Services for the Navy, Marine Corps or Air Force are to be determined, various "Quantity Issued" fields on the data base must be examined. Table 4-13 gives the appropriate source of data for calculating the "Received From" data for this report.

FIGURE 4-15

MONTHLY CONSUMPTION SUMMARY

FIGURE 4-16

QUARTERLY CONSUMPTION SUMMARY

FIGURE 4-17

CUMULATIVE CONSUMPTION SUMMARY

TABLE 4-13  
 SOURCES FOR  
"RECEIVED FROM" DATA

| Service being<br>Summarized* |                                      |                               |                                  |
|------------------------------|--------------------------------------|-------------------------------|----------------------------------|
| Army                         | Received<br>From<br>Air Force        | Received<br>From<br>Navy      | Received<br>From<br>Marine Corps |
|                              | Quantity Issued<br>to Service 1(QI1) | QI1                           | QI1                              |
| Navy                         | Received<br>From<br>Army             | Received<br>From<br>Air Force | Received<br>From<br>Marine Corps |
|                              | QI2                                  | QI2                           | QI3                              |
| Air Force                    | Received<br>From<br>Army             | Received<br>From<br>Navy      | Received<br>From<br>Marine Corps |
|                              | QI1                                  | QI2                           | QI2                              |
| Marine Corps                 | Received<br>From<br>Army             | Received<br>From<br>Air Force | Received<br>From<br>Navy         |
|                              | QI3                                  | QI3                           | QI3                              |

\* If agency data are being summarized, there will be no entries in the three Received From columns.

Service Total Consumption is the total of the Primary Use, Secondary Use, Tertiary Use, Aviation, and the three received from quantities. The Average Daily Consumption is calculated by dividing the Service Total Consumption for the line reported by the number of days in the month being reported. The number of days in each reporting period will be obtained through a parameter card submitted by DFSC-CB. The number of days in the month will be in columns 4 and 5, the number of days in the quarter in columns 9 and 20, and the number of days-to-date in the fiscal year will be right-justified in columns 13-15. If a report (such as the quarterly report) is not being requested, the number of days column can be blank.

These reports will normally be run twice a month, the first being a preliminary report. All preliminary reports will be run on one-part paper and forwarded to the system operator (DFSC-CB). Page breaks are required only when the page limit is reached.

#### 4.4.8.3.2 Monthly Petroleum Report

This report is primarily a print report, taking data submitted by the Service or agency and printing them in the prescribed format. The second part of the report is a Service Summary, which takes all detail data printed in Part I for the Service or agency and provides a summary by Product Code. The data elements printed on the Monthly Petroleum Report are listed in Table 4-14.

The Quantity Issued to Service data elements listed in Table 4-14 are reported in the Sold To fields on the reports. The Sold To fields will vary with the Service being reported. If the installation being reported is Army, the first Sold To field will be Air Force, the second will be Navy, and the third will be Marine Corps.

If the installation being reported is Navy, the first Sold To field will be Army, the second will be Air Force, and the third will be Marine Corps.

If the installation being reported is Marine Corps, the first Sold To field will be Army, the second will be Air Force, and the third will be Navy.

If the installation being reported is Air Force, the first Sold To field will be Army, the second will be Navy, and the third will be Marine Corps.

The following guidelines should facilitate the proper arrangement of the Sold To data.

- If the installation being reported is Army, the source of data for Sold To Air Force is the Quantity Issued to Service 1 (QI1), the Sold To Navy data is from QI2, and the Sold To Marine Corps is from QI3.
- If the installation being reported is Navy, the Sold To Army data come from QI1, the Sold To Air Force data come from QI2, and the Sold To Marine Corps data come from QI3.
- If the installation being reported is Marine Corps, the Sold To Army data come from QI1, the Sold To Air Force data come from QI2, and the Sold To Navy data come from QI3.
- If the installation being reported is Air Force, the Sold To Army data come from QI1, the Sold To Navy data come from QI2, and the Sold To Marines data come from QI3.

The Monthly Petroleum Report will include detail data for individual installations; these installations will be identified as to Major Command, and Major Commands identified to Service/agency. That is, the major print sequence is Major Command within Service/agency, and the minor print sequences are DoDAAC within Major Command and Product Code within DoDAAC. All data for each Major Command will be subtotalized, with each product within the command summarized, to produce a grand total of all products for the command. Part II of the report will summarize all data (by product) for the Service/agency and provide a grand total of all products for the Service/agency. Command consumption (sum of Primary, Secondary, Tertiary and Aviation fields) will be calculated for each product. Totals will also be given for each Major Command for the

TABLE 4-14  
PETROLEUM REPORT DATA

| Data Element Number | Data Element Description     | Source/Comments  |
|---------------------|------------------------------|--|
| 21                  | Product Code                 | Data Base  |
| 19                  | Opening Inventory            | Data Base  |
| 15                  | Issues                       | Data Base  |
| 4                   | Receipts-Commercial          | Data Base  |
| 11                  | Receipts from DoD            | Data Base  |
| 3                   | Closing Inventory            | Data Base  |
| 16                  | Loss/Downgrade               | Data Base  |
|                     | Gain/Loss                    | Calculated from book inventory*                                      |
| 33                  | Service MEA-3                | Data Base  |
| 34                  | Service MEA-4                | Data Base  |
| 22                  | Primary                      | Data Base  |
| 30                  | Secondary                    | Data Base  |
| 39                  | Tertiary                     | Data Base  |
| 1                   | Aviation Into-Plane          | Data Base  |
| 23                  | Quantity Issued to Service 1 | Data Base--varies by Service--<br>alias Sold To Field 1              |
| 24                  | Quantity Issued to Service 2 | Data Base--varies by Service--<br>alias Sold To Field 2              |
| 25                  | Quantity Issued to Service 3 | Data Base--varies by Service--<br>alias Sold to Field 3              |
| 18                  | Quantity to Non-DoD          | Data Base  |
| 13                  | Transfers Intra              | Data Base  |
| 12                  | Transfers Inter              | Data Base  |
|                     | Average Daily Issues         | Calculated, ISSUES ÷ number of<br>days in month/quarter/year to date |

\* Calculated book inventory = Opening Inventory + Receipts (Commercial)  
 + Receipts from DoD Issues. If the value = Closing Inventory, gain/loss  
 is 0. If the value is greater than Closing Inventory, there is a loss  
 and the value will be indicated with a (-) sign.

product types (e.g., aviation gasoline) shown in Table 4-10. Figures 4-18 and 4-19 show the layout of these reports.

In addition a category summary will be printed after each Command Total for that command and after each Service Total for that Service/agency. The category summary pages will utilize the Primary, Secondary, Tertiary and Aviation data only. The categories will be those shown in Table 4-10 except that the jet fuel categories will be combined.

All the data elements listed in Table 4-12 will be applicable (if reported on MEA 2-4 input) to all activities, except DFSC. The printed report, which includes DFSC activities, will only reflect Opening Inventory, Issues, Receipts-Commercial, Receipts From DoD and Closing Inventory. There will be an Average Daily Issue calculated for these activities.

Part I of the report should have page breaks at each change of Major Command, as well as when the page limit is reached. Part 2 of the report (Service Summary) will provide a page break for each Service as well as when the page limit is reached. Each Service/agency report will be booked separately. These reports will normally be run twice a month, the first run being a preliminary one. All preliminary reports will be run on one-part paper and distributed to DFSC-CB.

#### 4.4.8.3.3 Navy Petroleum Report Tape

This tape will include all the data required to produce the Navy portion of the Monthly Petroleum Report. It will be produced in conjunction with the Monthly Petroleum Report, before any further updates to the data base are made. Selection criteria will be the data for the DoDAACs identified with an "N" Service/Agency Code. The tape is not in print image format. The record layout is given in Table 4-15. The tape labels are standard, the external label is DSA.H26.NAV00420, the record size is 210, the blocking factor is 30, and the recording mode is F. The tape is 9-track, labeled, odd parity, 800 BPI.

#### 4.4.8.3.4 Navy/Marine Petroleum Report Tape

This tape will include all the data required to produce the Navy and Marine Corps portion of the Monthly Petroleum Report. Selection criteria will be the data for the DoDAACs identified with an "N" or an "M" Service/Agency Code. As in 4.3.8.3.3, the tape will be produced in conjunction with the Monthly Petroleum Report and will contain raw data rather than print images. The tape record layout is given in Table 4-15. The tape labels are standard, the external label is DSA.H26.NAV00410, the record size is 210, the blocking factor is 30, and the recording mode is F. The tape is 9-track, labeled, odd parity, 800 BPI. It should be mailed to:

David W. Taylor Naval Ship Research and Development Center  
Code 2705  
Annapolis, Maryland 21402.

FIGURE 4-18

## DEIS I MONTHLY PETROLEUM REPORT

FIGURE 4-19

DEIS I SERVICE SUMMARY

TABLE 4-15  
PETROLEUM REPORT TAPE LAYOUT

| Field Name Description     | Number of Bytes | Field Location |     | Picture | Usage   |
|----------------------------|-----------------|----------------|-----|---------|---------|
|                            |                 | From           | To  |         |         |
| DoDAAC                     | 7               | 1              | 7   |         |         |
| DoDAAD                     | 6               | 1              | 6   | X       | DISPLAY |
| TAC                        | 1               | 7              | 7   | X       |         |
| FILLER                     | 1               | 8              | 8   | X       |         |
| REGION                     | 2               | 9              | 10  | X       |         |
| FILLER                     | 1               | 11             | 11  | X       |         |
| STATE                      | 2               | 12             | 13  | X       |         |
| FILLER                     | 1               | 14             | 14  | X       |         |
| PRODUCT                    | 3               | 15             | 17  | X       |         |
| FILLER                     | 1               | 18             | 18  | X       |         |
| INSTALLATION NAME          | 40              | 19             | 58  | X       |         |
| FILLER                     | 1               | 59             | 59  | X       |         |
| MAJOR COMMAND              | 10              | 60             | 69  | X       |         |
| FILLER                     | 1               | 70             | 70  | X       |         |
| SERVICE                    | 1               | 71             | 71  | X       |         |
| FILLER                     | 1               | 72             | 72  | X       |         |
| JULIAN DATE - REPORT CYCLE | 5               | 73             | 77  |         |         |
| JULIAN YEAR                | 2               | 73             | 74  | 9       | DISPLAY |
| JULIAN DAY                 | 3               | 75             | 77  | 9       |         |
| FILLER                     | 1               | 78             | 78  | X       |         |
| OPENING INVENTORY          | 11              | 79             | 89  | 9       |         |
| FILLER                     | 1               | 90             | 90  | X       |         |
| TOTAL CONSUMPTION          | 11              | 91             | 101 | 9       |         |

TABLE 4-15  
PETROLEUM REPORT TAPE LAYOUT (Continued)

| Field Name Description       | Number of Bytes | Field Location |     | Picture | Usage   |
|------------------------------|-----------------|----------------|-----|---------|---------|
|                              |                 | From           | To  |         |         |
| FILLER                       | 1               | 102            | 102 | X       | DISPLAY |
| TOTAL RECEIPTS CONTRACT      | 11              | 103            | 113 | 9       |         |
| FILLER                       | 1               | 114            | 114 | X       |         |
| TOTAL RECEIPTS DoD AND OTHER | 11              | 115            | 125 | 9       |         |
| FILLER                       | 1               | 126            | 126 | X       |         |
| CLOSING INVENTORY            | 11              | 127            | 137 | 9       |         |
| FILLER                       | 1               | 138            | 138 | X       |         |
| AVERAGE DAILY CONSUMPTION    | 9               | 139            | 147 | 9       |         |
| FILLER                       | 1               | 148            | 148 | X       |         |
| FIRST QUANTITY ISSUED        | 6               | 149            | 154 | 9       |         |
| FILLER                       | 1               | 155            | 155 | X       |         |
| SECOND QUANTITY ISSUED       | 6               | 156            | 161 | 9       |         |
| FILLER                       | 1               | 162            | 162 | X       |         |
| QUANTITY TO DoD AND OTHER    | 6               | 163            | 168 | 9       |         |
| FILLER                       | 1               | 169            | 169 | X       |         |
| PRIMARY USE                  | 6               | 170            | 175 | 9       |         |
| FILLER                       | 1               | 176            | 176 | X       |         |
| SECONDARY USE                | 6               | 177            | 182 | 9       |         |
| FILLER                       | 1               | 183            | 183 | X       |         |
| TERTIARY USE                 | 6               | 184            | 189 | 9       |         |
| FILLER                       | 1               | 190            | 190 | X       |         |
| SERVICE FIRST USE            | 6               | 191            | 196 | 9       |         |
| FILLER                       | 1               | 197            | 197 | X       |         |
| SERVICE SECOND USE           | 6               | 198            | 203 | 9       | DISPLAY |
| FILLER                       | 7               | 204            | 210 | X       | DISPLAY |

#### 4.4.8.3.5 Army Petroleum Report Tape

This tape will include all the data required to produce the Army portion of the Monthly Petroleum Report. Selection criteria will be the data for the DoDAACs identified with an "A" or "B" Service/Agency Code. The tape will be produced in conjunction with the Monthly Petroleum Report and will contain raw data rather than print images. The tape record layout is given in Table 4-15. The tape labels are standard, the external label is DSA.H26.ARM00420, the record size is 210, the blocking factor is 30, and the recording mode is F. The tape is 9-track, labeled, odd parity, 800 BPI. It should be mailed to:

Commander USAMSSA  
DASC-AMF-B  
ATTN: Charles Joyce  
Room 8D997, Pentagon  
Washington, D. C. 20310.

#### 4.4.8.3.6 Cumulative Petroleum Reports

The criteria for producing the Cumulative Petroleum Reports are the same as for the monthly reports as described in 4.4.8.3.2. The only differences are the following:

- The cumulative reports will reflect fiscal year-to-date (all monthly input).
- The calculation of Average Daily Issues will be made by dividing the cumulative total issues by the total number of days which have elapsed during the fiscal year.

The sequence, subtotals, page breaks, and reporting cycle will be the same as for the monthly reports. The first page will show the definitions of Product Codes, and Primary, Secondary and Tertiary as on the monthly reports. Figures 4-20 and 4-21 show the layout of the Cumulative Petroleum Reports.

#### 4.4.8.3.7 Monthly/Quarterly Installation and Other Summary Reports

The following series of reports will be printed in sequence on both a monthly and quarterly basis.

- Part 1 - DEIS I Monthly Worldwide Category Summary
- Part 2 - DEIS I Monthly Worldwide Summary Report
- Part 3 - DEIS I Monthly CONUS Summary Report
- Part 4 - Region Summary Totals
- Part 5 - Vessel Summary Totals
- Part 6 - State Summary Totals
- Part 7 - DEIS I Monthly Installation Summary

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FIGURE 4-20

CIMIATIVE PETROLEUM REPORT

FIGURE 4-21

CUMULATIVE PETROLEUM SERVICE SUMMARY

PETROLEUM  
REPORT  
ALASKA  
NORTHWEST  
SUMMARY

These reports will generally be run twice a month, the first run being a preliminary report. All preliminary reports will be run on one-part paper and forwarded to DFSC-CB.

The reports will be run in the same sequence on a quarterly basis. The selection criteria will not change, except that the data selected to print will be for three months instead of one.

The above series consists of one detail report (Part 7), preceded by various summaries of that detail. Hence, criteria for selecting data for the detail report will be developed first, followed by discussion of the other six reports in reverse order.

#### Part 7 - DEIS I Monthly Installation Summary

The major sequence of this report is DOE Region/CINC. The sequence within this major sort, which will be followed for the report is as follows.

The 10 regions within CONUS will come first, in numerical order. The sequence of CINCs will be CINCAL, CINCLANT, Canada and Greenland, CINCEUR, CINCPAC, CINCSOU, MISCELLANEOUS CINC, and then a list of vessels. The title of the last portion will be VESSELS.

The next sequence is State/Country within Region/CINC. The sequence for CONUS regions will be the states within the region in alphabetical order. For CINCs, it will be the countries within a CINC in alphabetical order. There will be no sub-sort within the VESSELS portion of the report.

After this initial breakout, activities within a State/Country will be divided between DFSC and Retail Activities, with DFSC Activities printed first. After this segregation, activities will be printed in DoDAAC sequence. The last sequence will be Product Code within DoDAAC. Product Codes will be printed in alphabetical order within DoDAAC, with numerical codes in order first, followed by alphabetical codes.

The data elements printed on the report and their sources are as follows:

- DOE Region/CINC--Determined by matching the DoDAAC of the submitting activity to the coded information file
- State/Country--Determined by referring to the coded information file
- DoDAAC--Data base
- Installation Name--Determined from coded information
- Product Code--Data base
- Opening Inventory--Data base
- Issues--Data base

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- Receipts-Commercial--Data base
- Receipts from DoD--Data base
- Closing Inventory--Data base
- Average Daily Issues--Calculated value of Issues divided by number of days in reporting period

No summaries, subtotals, or totals are required for this part. Figure 4-22 gives a sample layout of this report. Page breaks are required for each change in State/Country, for each change in Region/CINC, and when the page limit is reached.

#### Quarterly Reports

The sequence, subtotal, page break, and other criteria will be the same for the quarterly as for the monthly Installation Summaries. The heading will change from Monthly to Quarterly, and the date from Month Of to As Of.

The quarterly report will be printed at the end of the quarter and will include data for the three months of that quarter only. The Opening Inventory will be the inventory at the beginning of the first month of the quarter. Issues, Receipts-Commercial, and Receipts From DoD will be an accumulation of the three months within the quarter being reported. The Closing Inventory is the inventory at the end of the last month in the quarter. Average Daily Issues will be calculated using the number of days in the quarter.

#### Part 6 - State Summary Totals

This report has the same sort sequences (Region/CINC and State/Country within Region/CINC) as the detail report. However, individual DoDAACs are not listed. This part of the report summarizes detail installation data at the DFSC and retail levels, by Product Code, for each State/Country. Within each Product Code, a summary line is printed for Retail activities within the State/Country, and for DFSC activities, as well as a total (Retail & DFSC) for the State/Country. A total of all Product Codes is provided at the end of each State/Country summary.

The source of data for this accumulation is the detail report (Part 7). Average Daily Issues is again a calculated value (Issues ÷ days reported). Vessels are not summarized in this report, as they cannot be assigned a State/Country.

Figure 4-23 provides a sample format for this report. Page breaks are required for each change in State/Country, each change in Region/CINC, and when the page limit is reached.

As in Part 7, the sequence, subtotal, page break and other criteria will be the same for the quarterly reports as for the monthlies. The heading will be changed from Monthly to Quarterly, and the date from Month Of to As Of.

FIGURE 4-22

## MONTHLY INSTALLATION SUMMARY

FIGURE 4-23

## MONTHLY SUMMARY BY DOE REGION/CINC

| DOE REGION DD MM YY    |                   | STATE SUMMARY BY DOE REG ON/CINC   |                   | PAGE 6 XXX           |           |
|------------------------|-------------------|------------------------------------|-------------------|----------------------|-----------|
| MONTH OF XXXXXXXX 19XX |                   | STATE/COUNTRY : XXXXXXXXXXXXXXXXXX |                   | AVERAGE DAILY ISSUES |           |
| PRODUCT CODE           | OPENING INVENTORY | ISSUES                             | RECEIPTS FROM DOB | CLOSING INVENTORY    |           |
| XXX                    | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX                     | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX       | X XXX XXX |
| XXX                    | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX                     | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX       | X XXX XXX |
| XXX                    | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX                     | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX       | X XXX XXX |
| XXX                    | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX                     | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX       | X XXX XXX |
| TOTAL - ALL PRODUCTS   |                   |                                    |                   |                      |           |
| RETAIL <sup>1</sup>    | XXXX,XXXX,XXXX    |                                    | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX       | X XXX XXX |
| DFSC <sup>2</sup> |  | XXXX,XXXX,XXXX    |                                    | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX       | X XXX XXX |
| Total <sup>3</sup> |  | XXXX,XXXX,XXXX    |                                    | XXXX,XXXX,XXXX    | XXXX,XXXX,XXXX       | X XXX XXX |
| Total <sup>4</sup>     |                   |                                    |                   |                      |           |

<sup>1</sup>This total is calculated by summing all the Retail lines for all the Product Codes.

<sup>2</sup>This total is calculated by summing all the DFSC lines for all the Product Codes.

<sup>3</sup>This total is calculated by summing all the Total lines for the Product Codes. It must also equal the sum of the total Retail and DFSC values.

The quarterly report will include data for the three months of the quarter being reported only. The Opening Inventory will be the inventory at the beginning of the first month of the quarter. Issues, Receipts-Commercial and Receipts-From DoD will be an accumulation of the three months within the quarter being reported. The Closing Inventory is the inventory at the end of the last month in the quarter. Average Daily Issues will be calculated using the number of days in the quarter.

#### Part 5 - Vessel Summary Totals

This report summarizes the vessel detail data from Part 7 in the same manner as Part 6 summarized State/Country data. Again, this part of the report will not include a State/Country, and the Region/CINC will be identified as Vessels. Data elements printed are the same as those in the State/Country Summary: Product Code, Opening Inventory, Issues, Receipts-Commercial, Receipts From DoD, Closing Inventory, and Average Daily Issues. All data are a total of detail printed in Part 7, summarized by Product Code. The report furnishes a total of all products, also segregated by Retail and Total.

Figure 4-24 provides a sample layout of this report. Page breaks are needed only when the page print limit is reached.

Quarterly reports have the same criteria as the monthly reports, with the same heading and data changes as specified for the Part 7 quarterlies.

#### Part 4 - Region Summary Totals

This part summarizes all detail data by Region/CINC, and excludes Vessels, already summarized in Part 5. Data elements are DOE Region/CINC, Product Code, Opening Inventory, Issues, Receipts-Commercial, Receipts From DoD, Closing Inventory, and Average Daily Issues. Detail data within each Region/CINC is totalled by Product Code for each Retail and DFSC activity, and printed. A total is also required for each Product Code, and the report will provide a total of all products, broken out by Retail, DFSC and Total.

Figure 4-25 gives a sample format of this report. Page breaks are required at each new Region/CINC.

Quarterly reports have the same criteria as the monthly reports, with heading and data changes as specified for the Part 7 quarterlies.

#### Part 3 - DEIS I Monthly CONUS Summary Report

This part of the report is a summary of all installations within CONUS. It summarizes all data on Regions 1 through 10 by Product Code. A total is calculated for the Retail and DFSC lines for each Product Code. The Grand Total totals all Retail, DFSC and Total lines. Figure 4-26 gives a sample format for this report.

FIGURE 4-24

DEIS 1 MONTHLY SUMMARY BY DOE REGION/CINC

## VESSEL SUMMARY

This total is calculated by summing all the potential losses.

This total is calculated by summing all the retail lines for all the product code

3. This total is calculated by summing all the DFSC lines for all the Product Codes.

FIGURE 4-25

DEIS I MONTHLY SUMMARY BY DOE REGION/CINC

REGION SUMMARY

| DOE ON DD MM YY             |                   | DOE REGION/CINC |                               | DEIS I MONTHLY SUMMARY BY DOE REGION/CINC |                      | REGION SUMMARY TOTALS |  | MONTH OF MM/XXXX |  |
|-----------------------------|-------------------|-----------------|-------------------------------|---|----------------------|-----------------------|--|------------------|--|
|                             |                   |                 |                               |   |                      |                       |  |                  |  |
| PRODUCT CODE                | OPENING INVENTORY | ISSUES          | RECEIPTS COMMERCIAL FROM DFSC | CLOSING INVENTORY                         | AVERAGE DAILY ISSUES |                       |  |                  |  |
| XXX                         | XXX, XXX, XXX     | XXX, XXX, XXX   | XXX, XXX, XXX                 | XXX, XXX, XXX                             | XXX, XXX, XXX        |                       |  |                  |  |
| DFSC 1                      | XXX, XXX, XXX     | XXX, XXX, XXX   | XXX, XXX, XXX                 | XXX, XXX, XXX                             | XXX, XXX, XXX        |                       |  |                  |  |
| DFSC 2                      | XXX, XXX, XXX     | XXX, XXX, XXX   | XXX, XXX, XXX                 | XXX, XXX, XXX                             | XXX, XXX, XXX        |                       |  |                  |  |
| DFSC 3                      | XXX, XXX, XXX     | XXX, XXX, XXX   | XXX, XXX, XXX                 | XXX, XXX, XXX                             | XXX, XXX, XXX        |                       |  |                  |  |
| <b>TOTAL - ALL PRODUCTS</b> |                   |                 |                               |   |                      |                       |  |                  |  |
| RETAIL                      | 2020, XXX, XXX    | 2020, XXX, XXX  | 2020, XXX, XXX                | 2020, XXX, XXX                            | 2020, XXX, XXX       |                       |  |                  |  |
|                             |                   |                 |                               |   |                      |                       |  |                  |  |

<sup>1</sup>This total is calculated by summing all the Retail lines for all the Product Codes.

<sup>2</sup>This total is calculated by summing all the DFSC lines for all the Product Codes.

<sup>3</sup>This total is calculated by summing all the Total lines for the Product Codes. It must also equal the sum of the total Retail and DFSC values.

FIGURE 4-26

## MONTHLY CONUS SUMMARY REPORT

| JAN ON DD MM YY                   |             | OPENING INVENTORY |             | RECEIPTS COMMERCIAL |             | CLOSING INVENTORY |             | AVERAGE DAILY ISSUES |  |
|-----------------------------------|-------------|-------------------|-------------|---------------------|-------------|-------------------|-------------|----------------------|--|
| PRODUCT CODE                      | ISSUES      | FROM DOD          | XXX,XXX,XXX | XXX,XXX,XXX         | XXX,XXX,XXX | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX          |  |
| RETAIL                            | XXX,XXX,XXX |                   |             |                     |             |                   |             |                      |  |
| DFSC                              | XXX,XXX,XXX |                   |             |                     |             |                   |             |                      |  |
| TOTAL                             | XXX,XXX,XXX |                   | XXX,XXX,XXX | XXX,XXX,XXX         | XXX,XXX,XXX | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX          |  |
| <b>GRAND TOTAL - ALL PRODUCTS</b> |             |                   |             |                     |             |                   |             |                      |  |
| RETAIL                            | XXX,XXX,XXX |                   | XXX,XXX,XXX | XXX,XXX,XXX         | XXX,XXX,XXX | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX          |  |
| DFSC <sup>2</sup>                 | XXX,XXX,XXX |                   | XXX,XXX,XXX | XXX,XXX,XXX         | XXX,XXX,XXX | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX          |  |
| TOTAL <sup>3</sup>                | XXX,XXX,XXX |                   | XXX,XXX,XXX | XXX,XXX,XXX         | XXX,XXX,XXX | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX          |  |

1. This total is calculated by summing all the retail lines for all the product codes.

2. This total is calculated by summing all the DFSC lines for all the product codes.

3. This total is calculated by summing all the Total lines for the Product Codes. It must also equal the sum of the total Retail and DFSC values.

AD-A104 016

LOGISTICS MANAGEMENT INST WASHINGTON DC  
DEFENSE ENERGY INFORMATION SYSTEM (DEIS): DEIS-80 DESIGN SYSTEM—ETC(IU)

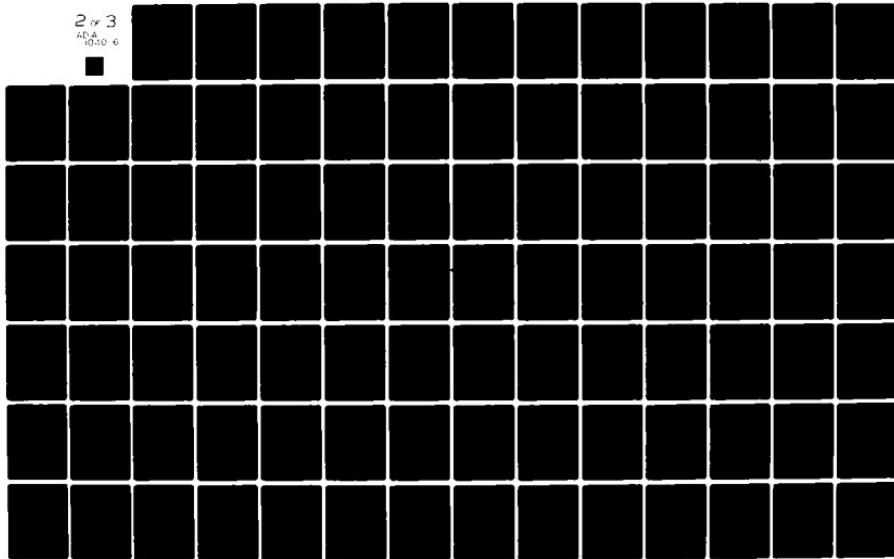
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2 of 3  
40A  
1040 6



### Part 2 - DEIS I Monthly Worldwide Summary Report

This part of the report is an overall summary of all detail data in Part 7, and is a compilation of data from the 10 CONUS Regions, all CINCs, and Vessels. The data elements summarized are the same as in all the other summaries. Figure 4-27 gives a sample format of this report. The report is in Product Code sequence, each Product Code having a Retail, DFSC, and Total line.

When the Grand Total is calculated, it must be verified. The total of all Retail lines within each Product Code will be added to get the Grand Total-Retail. The same will be done for the DFSC and Total lines. The Grand Total will then be verified by adding the Grand Total-Retail and DFSC lines. This report is a consolidation by Product Code of all data reported for the month for all CONUS Regions, all overseas CINCs, and Vessels.

Page breaks are needed only when the maximum lines of print are reached.

The sequence subtotal, page break, and other criteria will be the same for the quarterly reports as for the monthly reports. The heading will be changed from Monthly to Quarterly, and the date of the report will be changed from Month of to As Of.

The quarterly report will include data for the three months of the quarter being reported only. The Opening Inventory will be the inventory at the beginning of the first month of the quarter. Issues, Receipts-Commercial and From DoD will be an accumulation of the three months within the quarter being reported. The Closing Inventory is the inventory at the end of the last month in the quarter. Average Daily Issues will be calculated using the number of days in the quarter.

### Part 1 - DEIS I Monthly Worldwide Category Summary

This part of the report contains the same data as Part 2, except that categories of products are reported instead of Product Codes. The sequence in which the Product Categories should be printed is as displayed in Figure 4-28. This summary will be produced for each Service and for all DoD.

See Table 4-9 for criteria for consolidating Product Codes into Product Categories. Heating Fuels (Distillates and Residuals) will be added to provide Total Heating Fuels. This report will contain a Grand Total-All Categories, which must equal the Total line on the Monthly Worldwide Summary Report.

The sequence, subtotal, page break, and other criteria will be the same for the quarterly reports as for the monthlies. The heading will be changed from Monthly to Quarterly, and the date from Month Of to As Of. The first page of both the monthly and quarterly reports will contain a list of all Product Codes in each Product Category, a definition of each Product Code, and definitions of Primary, Secondary, and Tertiary for each Service.

FIGURE 4-27

WORLDWIDE SUMMARY REPORT

| PRODUCT CODE                      |  | OPENING INVENTORY |  | REBUILDS       |  | CLOSING INVENTORY |  | AVERAGE DAILY ISSUES |  |
|-----------------------------------|--|-------------------|--|----------------|--|-------------------|--|----------------------|--|
| <u>RETAIL</u>                     |  | XXXX, XXX, XXX    |  | XXXX, XXX, XXX |  | XXXX, XXX, XXX    |  | XXXX, XXX, XXX       |  |
| <u>DFSC</u>                       |  | XXX, XXX, XXX     |  | XXX, XXX, XXX  |  | XXX, XXX, XXX     |  | XXX, XXX, XXX        |  |
| <u>TOTAL</u>                      |  | XXXX, XXX, XXX    |  | XXXX, XXX, XXX |  | XXXX, XXX, XXX    |  | XXXX, XXX, XXX       |  |
| <b>GRAND TOTAL - ALL PRODUCTS</b> |  |                   |  |                |  |                   |  |                      |  |
| <u>RETAIL</u>                     |  | XXX, XXX, XXX     |  | XXXX, XXX, XXX |  | XXXX, XXX, XXX    |  | XXXX, XXX, XXX       |  |
| <u>DFSC</u>                       |  | XXX, XXX, XXX     |  | XXX, XXX, XXX  |  | XXXX, XXX, XXX    |  | XXXX, XXX, XXX       |  |
| <u>TOTAL</u>                      |  | XXX, XXX, XXX     |  | XXX, XXX, XXX  |  | XXXX, XXX, XXX    |  | XXXX, XXX, XXX       |  |

1 This total is calculated by summing all the Retail lines for the Product Codes.

2 This total is calculated by summing all the DFSC lines for all the Product Codes.

3 This total is calculated by summing all the Total lines for the Product Codes. It must also equal the sum of the total Retail and DFSC values.

FIGURE 4-28

WORLDWIDE CATEGORY SUMMARY

| DESI MONTHLY WORLDWIDE CATEGORY SUMMARY |                 |                   |                 |                 |                 |                   |                 |                   |                 |
|---|-----------------|-------------------|-----------------|-----------------|-----------------|-------------------|-----------------|-------------------|-----------------|
| RUN ON DD MM YY                         |                 | OPENING INVENTORY |                 | ISSUES          |                 | RECEIPTS FROM DDP |                 | CLOSING INVENTORY |                 |
| PRODUCT                                 | CATEGORY        | COMMERCIAL        | INDUSTRIAL      | COMMERCIAL      | INDUSTRIAL      | COMMERCIAL        | INDUSTRIAL      | COMMERCIAL        | INDUSTRIAL      |
| AVIATION GASOLINES                      | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| JET FUELS                               | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| DISTILLATES                             | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| AUTOMOTIVE GASOLINES                    | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| RESIDUALS                               | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| HEATING FUEL - DISTILLATE               | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| HEATING FUEL - RESIDUALS                | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| TOTAL - HEATING FUELS                   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX | XXX,XXX,XXX,XXX   | XXX,XXX,XXX,XXX |
| GRAND TOTAL - ALL CATEGORIES            | X,XXX,XXX,XXX   | X,XXX,XXX,XXX     | X,XXX,XXX,XXX   | X,XXX,XXX,XXX   | X,XXX,XXX,XXX   | X,XXX,XXX,XXX     | X,XXX,XXX,XXX   | X,XXX,XXX,XXX     | X,XXX,XXX,XXX   |

The quarterly report will include data for the three months of the quarter being reported only. The Opening Inventory will be the inventory at the beginning of the first month of the quarter. Issues, Receipts-Commercial, and Receipts From DoD will be an accumulation of the three months within the quarter being reported. The Closing Inventory is the inventory at the end of the last month in the quarter. Average Daily Issues will be calculated using the number of days in the quarter.

#### 4.4.8.3.8 Cumulative Reports

The three-part cumulative summary report produced each month will be generated in the same manner as the monthly summaries. The cumulative reports are:

Part 1 - DEIS I--Cumulative Worldwide Category Summary

Part 2 - DEIS I--Cumulative Worldwide Summary Report

Part 3 - DEIS I--Cumulative CONUS Summary Report

These three summaries include the same data elements as the monthly summaries. The only difference is that the data reflected on the cumulative reports are fiscal year-to-date as of the date that the report is run. These summaries are merely totals of all previous monthly reports for the fiscal year.

Average Daily Issues on the cumulative reports are calculated by dividing Total Issues by the number of days reported to date in the fiscal year. Opening inventory is the opening inventory at the beginning of the fiscal year and closing inventory is the current closing inventory.

This set of reports will be in the same sequence, will provide the same sub-totals and page breaks as the monthly reports of the same name (see 4.3.8.3.7). Figures 4-29 and 4-30, and 4-31 show sample layouts of these reports.

These cumulative reports should be printed and booked immediately in back of Parts 1 through 3 of the monthly reports of the same name.

These reports will not be included in the quarterly series of reports.

The cumulative reports will normally be run twice a month, the first being a preliminary report. All preliminary reports will be run on one-part paper and forwarded to DFSC-CB.

#### 4.4.8.3.9 Navy/Marine Corps Installation Summary Tape

This tape will include all the data required to produce the monthly installation summary reports for all Navy and Marine Corps activities. Selection criteria will be the data for those DoDACCs identified with a "M" or "N" Service/Agency Code. This tape will be produced in conjunction with the Monthly Installation Summary (4.4.8.3.7), before any further changes to the data base are processed.

FIGURE 4-29

CUMULATIVE WORLDWIDE CATEGORY SUMMARY

| MM DD YYYY                   |          | DEIS I CUMULATIVE WORLDWIDE CATEGORY SUMMARY<br>AS OF XXXXX 19XX |                  | PAGE 1, XXXX           |                      |
|------------------------------|----------|--|------------------|------------------------|----------------------|
| PRODUCT                      | CATEGORY | OPENING<br>INVENTORY   | ISSUES           | RECEIPTS<br>COMMERCIAL | CLOSING<br>INVENTORY |
| AERONAUTIC GASOLINES         |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| JET FUELS                    |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| DISTILLATES                  |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| MOTORIVE GASOLINES           |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| RESIDUALS                    |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| HEATING FUEL - DISTILLATES   |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| HEATING FUEL - RESIDUALS     |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| TOTAL - HEATING FUELS        |          | XXX, XXX, XXX  | XXX, XXX, XXX    | XXX, XXX, XXX          | XXX, XXX, XXX        |
| GRAND TOTAL - ALL CATEGORIES |          | X, XXX, XXX, XXX   | X, XXX, XXX, XXX | X, XXX, XXX, XXX       | XX, XXX, XXX         |

FIGURE 4-30

## CUMULATIVE WORLDWIDE SUMMARY REPORT

| RUN ON PP MM NY            |             | LEIS              |             | CUMULATIVE WORLDWIDE SUMMARY REPORT |                     | TACD 124XXX        |                      |
|----------------------------|-------------|-------------------|-------------|-------------------------------------|---------------------|--------------------|----------------------|
|  |  | AS OF XXXXX-MM-DD 19XX     |             |                   |             |                                     |                     |                    |                      |
| PRODUCT CODE               | DESCRIPTION | OPENING INVENTORY | ISSUES      | RECEIPTS                            | COMMERCIAL FROM DOD | CLOSINGS INVENTORY | AVERAGE DAILY ISSUES |
| XX                         | RETAIL      | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX                         | XXX,XXX,XXX         | XXX,XXX,XXX        | X,XXX,XXX            |
| XXX                        | DFSC        | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX                         | XXX,XXX,XXX         | XXX,XXX,XXX        | X,XXX,XXX            |
| XXX                        | TOTAL       | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX                         | XXX,XXX,XXX         | XXX,XXX,XXX        | X,XXX,XXX            |
| GRAND TOTAL - ALL PRODUCTS |             | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX                         | XXX,XXX,XXX         | XXX,XXX,XXX        | X,XXX,XXX            |
|                            |             | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX                         | XXX,XXX,XXX         | XXX,XXX,XXX        | X,XXX,XXX            |
|                            |             | XXX,XXX,XXX       | XXX,XXX,XXX | XXX,XXX,XXX                         | XXX,XXX,XXX         | XXX,XXX,XXX        | X,XXX,XXX            |

1. This total is calculated by summing all the Retail lines for all the Product Codes.

2. This total is calculated by summing all the DFSC lines for all the Product Codes.

3. This total is calculated by summing all the Total lines for the Product Codes. It must also equal the sum of the total Retail and DFSC values.

FIGURE 4-31

CUMULATIVE CONUS SUMMARY REPORT

| RUN ON DD MM YY                   |                     | OPENING INVENTORY |            | RECEIPTS FROM POD |            | CLOSING INVENTORY |            | AVERAGE DAILY ISSUES |            |
|-----------------------------------|---------------------|-------------------|------------|-------------------|------------|-------------------|------------|----------------------|------------|
| PRODUCT CODE                      | MONTH OF YYYY       | ISSUES            | COMMERCIAL | ISSUES            | COMMERCIAL | ISSUES            | COMMERCIAL | ISSUES               | COMMERCIAL |
| XXX                               | RETAIL              | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | X, XXX, XXX          |            |
| KKK                               | DFSC                | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | X, XXX, XXX          |            |
| XXX                               | TOTAL               | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | X, XXX, XXX          |            |
| <b>GRAND TOTAL - ALL PRODUCTS</b> |                     |                   |            |                   |            |                   |            |                      |            |
|                                   | RETAIL <sup>1</sup> | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | X, XXX, XXX          |            |
|                                   | DFSC <sup>2</sup>   | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | X, XXX, XXX          |            |
|                                   | TOTAL <sup>3</sup>  | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | XXX, XXX, XXX     |            | X, XXX, XXX          |            |

1 This total is calculated by summing all the Retail lines for all the Product codes.

2 This total is calculated by summing all the DFSC lines for all the Product codes.

3 This total is calculated by summing all the Total lines for the Product codes listed above.

This tape contains raw data, not print images. The tape record layout is given in Table 4-16. The tape labels are standard, the external label is DSA.H26.NAV00110, the record size is 150, the blocking factor is 23, and the recording mode is F. This tape is a 7-track, unlabeled, even parity, 800 BPI. It should be mailed to:

David Taylor Ship Research and Development Center  
Code 2705  
Annapolis, Maryland 21402

#### 4.4.9 Ad Hoc Reports

This function will provide macros to extract data from the DEIS I data base.

##### 4.4.9.1 Purpose

Queries to the DEIS I data base from users other than the system operator will be of two types. One type of query is simply to retrieve certain data elements, based on user-specified selection criteria, and display the data. At times, simple arithmetic operations may be requested on the data. For this type of ad hoc report, the macros should assign any files, invoke any processors, and assist the user to create query statements.

The second type of query is to extract and store selected data elements for further processing by statistical package software such as SPSS. In particular, linear regression, time series, cross tabulation, and one-way analysis of variance statistical procedures will be performed on selected data elements.

##### 4.4.9.2 Data Input

The user should provide a minimum of data to produce ad hoc reports. Defaults for table headings should exist. The user should be allowed to direct the output from the session.

The following are samples of the queries that may be requested.

- Display the data for DoDAAC = XXXXX, Date = MMYY, Product Code = XXX.
- What is the total consumption of jet fuels (or automotive gasoline) for quarter 2 of the current fiscal year (or of last year)? Multiply this number by 42 to give total consumption in gallons.
- What is the percent change in total consumption (or average daily consumption) for Major Command = X---X, between this month and this month a year ago (or this quarter and the previous 5 quarters) for distillates (or fuel oil)?
- What is the total consumption for each Service for the past 12 months? Multiply this by the current fuel price (input value).

##### 4.4.9.3 Output

Output will be printed on the originating terminal, directed to another (high-speed) printer, or saved in a file for further processing. In addition,

TABLE 4-16  
NAVY/MARINE INSTALLATION SUMMARY  
TAPE LAYOUT

| Field Name Description    | Number of Bytes | Field Location |     |
|---------------------------|-----------------|----------------|-----|
|                           |                 | From           | To  |
| DoAAC                     | 7               | 1              | 7   |
| DoDAAD                    | 6               | 1              | 6   |
| TAC                       | 1               | 7              | 7   |
| FILLER                    | 1               | 8              | 8   |
| REGION                    | 2               | 9              | 10  |
| FILLER                    | 1               | 11             | 11  |
| STATE                     | 2               | 12             | 13  |
| FILLER                    | 1               | 14             | 14  |
| PRODUCT CODE              | 3               | 15             | 17  |
| FILLER                    | 1               | 18             | 18  |
| FIRST QUANTITY ISSUED TO  | 6               | 19             | 24  |
| FILLER                    | 1               | 25             | 25  |
| SECOND QUANTITY ISSUED TO | 6               | 26             | 31  |
| FILLER                    | 1               | 32             | 32  |
| QUANTITY TO DoD & OTHER   | 6               | 33             | 38  |
| FILLER                    | 1               | 39             | 39  |
| PRIMARY USE               | 6               | 40             | 45  |
| FILLER                    | 1               | 46             | 46  |
| SECONDARY USE             | 6               | 47             | 52  |
| FILLER                    | 1               | 53             | 53  |
| TERTIARY USE              | 6               | 54             | 59  |
| FILLER                    | 1               | 60             | 60  |
| SERVICE USE               | 6               | 61             | 66  |
| FILLER                    | 1               | 67             | 67  |
| SERVICE USE               | 6               | 68             | 73  |
| FILLER                    | 1               | 74             | 74  |
| INSTALLATION NAME         | 40              | 75             | 114 |
| FILLER                    | 1               | 115            | 115 |
| REPORT CYCLE DATE         | 5               | 116            | 120 |
| MONTH                     | 2               | 116            | 117 |
| BLANK                     | 1               | 118            | 118 |
| YEAR                      | 2               | 119            | 120 |
| FILLER                    | 1               | 121            | 121 |
| MAJOR COMMAND             | 20              | 122            | 131 |
| FILLER                    | 1               | 132            | 132 |
| SERVICE                   | 1               | 133            | 133 |
| FILLER                    | 14              | 134            | 150 |

at the user's option, the statements used to generate the query may be saved for future use and modification.

## SECTION 5. DEIS II DESIGN DETAILS

The overall requirement for the DEIS II subsystem is to provide data and reports for easy and accurate monitoring of utility energy consumption within DoD. With this general design criterion as a guideline, the following requirements were developed. First, DEIS II data will be maintained on an unclassified system and use a DBMS that supports on-line queries through standard data base retrieval routines. Second, the DBMS will provide the capability to add and delete data element fields when new requirements arise. Third, DEIS II data editing, including both format and reasonableness criteria, will provide increased accuracy. Fourth, code translation capabilities and ad hoc report generation procedures will be included in DEIS II to increase the readability of reports and the responsiveness of the system. Finally, DEIS II data reporting requirements will request data in the unit of measurement commonly used for consumption so that data collection is simplified. The specific automated functions designed to meet these DEIS II requirements are described in the following paragraphs.

### 5.1 General Operating Procedures

#### 5.1.1 Data Requirements

Most DEIS II data will be collected by the field activities in the MEB format shown in Appendix C. The capability must be provided to input data to the DEIS II data base on-line, as well as from MEB cards and card images on magnetic tape. Edit procedures will prevent double entry of data. Duplicate records will be printed on an error report (called a Transaction Proof Listing).

All data submitted from a field activity will be handled as add transactions unless data for the same date, installation and product (if applicable) exist in the data base. The DEIS system operator (DFSC-CB) will retain a listing (for one year) of the data submitted from the field activities, either the DD 173 message form or a listing of validated punched cards received via AUTODIN.

#### 5.1.2 System Scheduling Requirements

DEIS II has a monthly reporting cycle for all activities. Data are reported as of 0800 hours local mean time on the last day of each month. Data are due at DLA, Cameron Station, by 0800 hours on the 28th day of the following month. Initial data editing, including production of the Nonreporting Activities Report, should be completed by 0800 hours on the 29th of the month. Data from late reporters and changes due to the initial editing and preliminary reports will be entered between the 29th and the 6th of the next month. Final reports will be provided to the Defense Energy Policy Office and the designated components not later than the 10th day of the month. These final reports will reflect end-of-month data as of five to six weeks previously. DFSC-CB will initiate the request for these final reports. Table 5-1 summarizes the processing cycle for DEIS II. This schedule shows an optimal processing cycle and may be revised after the system is operational.

TABLE 5-1  
DEIS II PROCESSING CYCLE

| <u>Day of the Month</u> | <u>Responsible Party</u> | <u>Actions Required</u>   |
|-------------------------|--------------------------|---|
| last                    | Activity/Installation    | Collect DEIS II data.   |
| 1-27                    | Activity/Installation    | Submit DEIS II data for transmission.   |
| 28                      | DLA                      | After 0800 hours, separate DEIS data produce tape, and send to AFDSC.                           |
| 29-8                    | DFSC-CB                  | Run edits as required.  |
| 29                      | AFDSC*                   | Run initial update. Send list of errors and non-reporters to DFSC-CB.                           |
| 29                      | AFDSC                    | Process weather/I&H data, update data base.   |
| 29                      | DFSC-CB                  | Notify non-reporters, start error corrections.  |
| 30-8                    | DLA                      | Separate any remaining DEIS data, produce tape, and send to AFDSC.                              |
| 9                       | AFDSC*                   | Update data base with new data. Deliver report tapes to DLA.                                    |
| 10**                    | DLA                      | Produce, bind, and deliver reports.   |
| 11-15                   | DFSC-CB                  | Enter remaining corrections and late reports. Request edit, update, report cycle, if necessary. |
| 15                      | AFDSC, DFSC-CB           | Archive data from on-line data base.  |
| all                     | DFSC-CB                  | Maintain tables and coded information. Enter corrections to data base.                          |

\* AFDSC will plan to provide less than 24-hour turnaround on jobs submitted, however, machine availability/scheduling may delay the output.

\*\* DEIS II reports delivered approximately 40 days after the activity "cut-off" date, that is, the reports reflecting January consumption are available by March 10.

#### 5.1.3 Data Base Back-up Procedures

The data base back-up procedures for DEIS II are the same as those for DEIS I (see 4.1.3).

#### 5.1.4 Recovery Procedures

Restart and recovery procedures will conform to standard AFDSC procedures. Transaction logging, retention of DEIS II data tapes, and the data base back-up will permit recovery of a damaged data base. AFDSC will develop such procedures, consistent with their operating procedures.

#### 5.1.5 Access to Archived Data

Occasionally data not contained in the on-line data base will be needed. Procedures (using INQUIRE capabilities) will exist to create a temporary INQUIRE data base containing archived data for use in on-line data retrieval and data reporting.

#### 5.1.6 DEIS II Data Monitoring

The Defense Energy Policy Office has management responsibility for DEIS II, and AFDSC has programming responsibility. DLA manages automated operations through DFSC-CB. The DEIS system operator is authorized direct communication with all reporting activities to request late reports and to verify reported data. The DEIS system operator is responsible for making (with Defense Energy Policy Office authorization) all changes to data more than 120 days old. DFSC-CB also coordinates with AFDSC any changes to coded or tabular information in the data base, and works with the Defense Energy Policy office when programming changes to DEIS are anticipated.

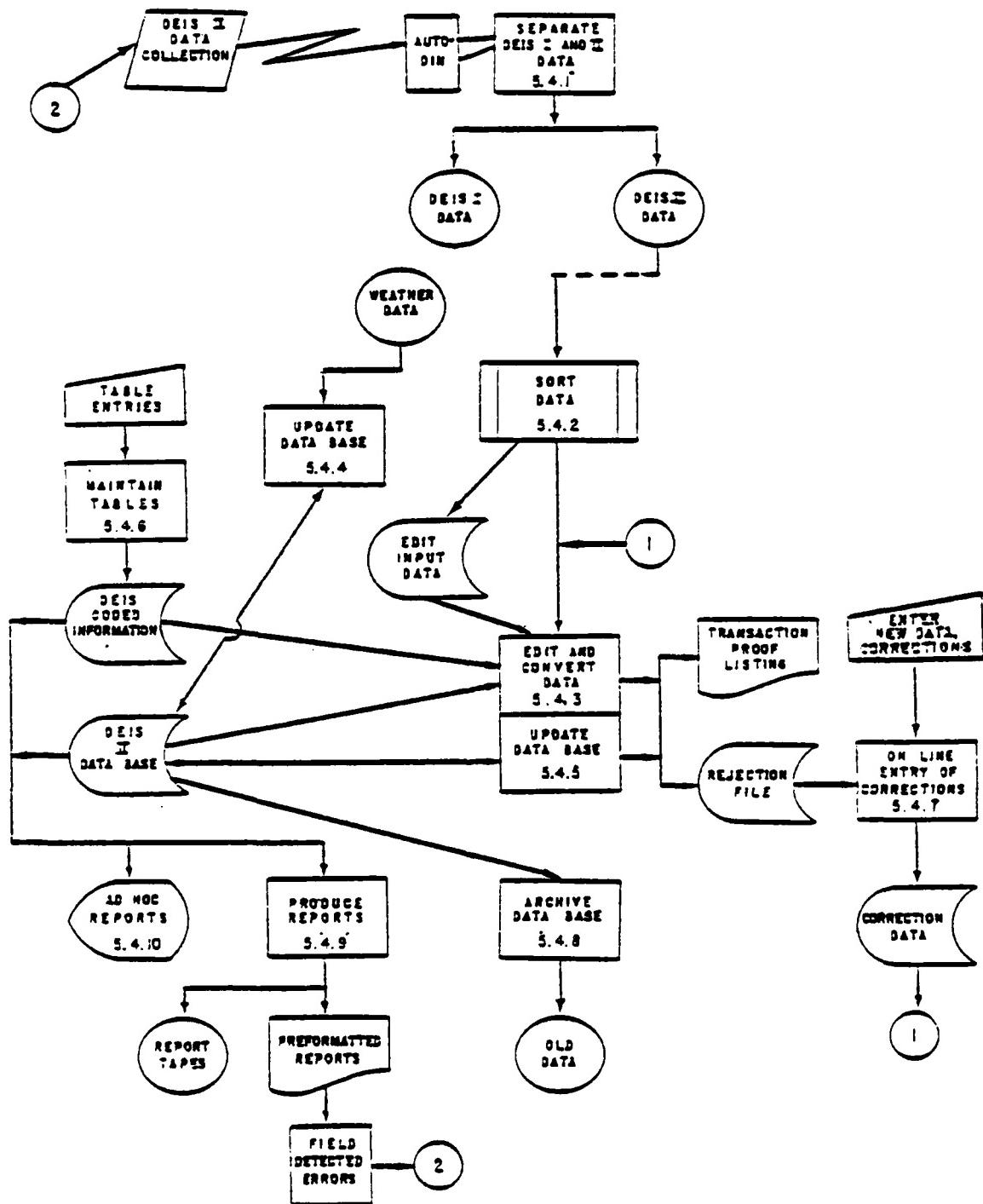
### 5.2 DEIS II Subsystem Logic Flow

The general system flow of DEIS II is designed to provide functions to process and access utility usage data in a timely manner. The flowchart in Figure 5-1 illustrates the DEIS II subsystem logical flow.

Source data enter DEIS II from energy-consuming facilities through AUTODIN, the DD173 message form, or other communications media. DEIS data are collected at DLA, Cameron Station, where DEIS II data are separated from other data and recorded on magnetic tape. The DEIS II tape is then transmitted to AFDSC for further processing.

At AFDSC, DEIS II data are sorted and edited for format and validity (compared to data already in the data base). Records believed to be in error are placed on both the Transaction Proof Listing and the Rejection File for review. All data with a date older than 120 days are placed on the Transaction Proof Listing and the Rejection File for review, acceptance or rejection, and resubmission of data. In addition, those activities which have not submitted DEIS II data are identified and reported. Data which pass the edits are converted to the INQUIRE data base format, and the data base is updated.

FIGURE 5-1  
DEIS II SYSTEM FLOWCHART



Data records believed to be in error are corrected and resubmitted for editing, conversion, and data base updating. DEIS II data relating to installations, such as name, address, and conversion factors, are maintained on an INQUIRE coded information file.

DEIS II reports will be produced once the data reporting cycle is completed or by the 10th of each month. Ad hoc reports and data base queries will be made on an as-needed basis. Errors in reports detected by data submitters can be corrected via AUTODIN or by notifying the system operator.

The data base will contain detail data for installation (DoDAAC) utility usage for the most recent 13 months and for the baseline (1975) 12 months. Quarterly summary data will be for each installation and each utility product used for the 5 years prior to the earliest of the most recent 13 months. Each month, the appropriate monthly and quarterly data will be removed from the on-line data base and saved off-line for possible reload and retrieval.

### 5.3 Subsystem Data

This subsection describes inputs, outputs, and the data base used for DEIS II.

#### 5.3.1 Inputs

The data elements used in DEIS II, including number, name, source, format, and acceptable values, are described in Appendix B. Table 5-2 shows the layout of the data (quarterly) on existing master files for the fiscal years 1976-1980. The Julian date must be converted to the appropriate fiscal year quarter. No other data editing is necessary for these data. The tape for each quarter is 7 track, unlabeled, even parity, 800 BPI. The record size is 170 and the blocking factor is 20.

The data elements for fiscal year 1975 consist of the DoDAAC, Date, Product Code, and Consumption fields for each month. This data will be provided on tape by DLA along with a record layout and tape specifications. The data elements for data starting in fiscal year 1981, consist of MEB 2 card images. Prior to October 1981, any value in the Btu Content (cc 34-39) field of MEB 2 should be ignored and the standard conversion factor will be placed in this field. In addition, prior to October 1981, the Funded Consumption field (cc 53-60) data on the MEB 2 should be ignored and a value of zero placed in that field except for Navy and Marine activities. This data will be provided on tape by DLA along with the tape specifications.

All data items from the field and the National Climatic Center data will be submitted monthly according to the schedule described in 5.1.2. Approximately 939,300 characters will be submitted monthly. Housing data (approximately 59,400 characters) will be submitted annually in October. Coded information items will be submitted on an as-needed basis.

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TABLE 5-2  
DEIS II MASTER FILE LAYOUT

| <u>DATA ELEMENT NUMBER</u> | <u>DATA ELEMENT DESCRIPTION</u> | <u>RECORD POSITION</u> | <u>FIELD TYPE *</u>        |
|----------------------------|---------------------------------|------------------------|----------------------------|
| 12                         | DoDAAC                          | 1-6                    | Alphanumeric               |
| NA                         | TAC                             | 7                      | Alphanumeric               |
|                            | Filler                          | 8                      |                            |
| 27                         | Region Code                     | 9-10                   | Coded information          |
|                            | Filler                          | 11                     |                            |
| 33                         | State Code                      | 12-13                  | Coded information          |
|                            | Filler                          | 14                     |                            |
| 24                         | Product Code                    | 15-17                  | Alphanumeric               |
|                            | Filler                          | 18                     |                            |
| 17                         | Inventory                       | 19-27                  | Numeric, positive or blank |
|                            | Filler                          | 28                     |                            |
| NA                         | Baseline 73                     | 29-37                  | Not used in DEIS II        |
|                            | Filler                          | 38                     |                            |
| 8                          | Consumption                     | 39-47                  | Numeric, positive or zero  |
|                            | Filler                          | 48                     |                            |
| NA                         | Service Use 1                   | 49-57                  | Not used in DEIS II        |
|                            | Filler                          | 58                     |                            |
| NA                         | Service Use 2                   | 59-67                  | Not used in DEIS II        |
|                            | Filler                          | 68                     |                            |
| 16                         | Installation Name               | 69-108                 | Coded information          |
|                            | Julian Year                     | 109-110                | Alphanumeric               |
|                            | Julian Days                     | 111-113                | Numeric                    |
|                            | Filler                          | 114                    |                            |
| 18                         | Major Command                   | 115-124                | Coded information          |
|                            | Filler                          | 125-146                |                            |
| 35                         | Variance Code                   | 147-148                | Numeric                    |
| 30                         | Service Code                    | 149                    | Coded information          |
| NA                         | Report Code                     | 150                    |                            |
| NA                         | Dummy Record Code               | 151                    |                            |
| NA                         | Service 75 Consumption          | 152-160                | Actual 1975 data used      |
|                            | Filler                          | 161                    |                            |
| NA                         | DSA 75 Consumption              | 162-170                | Not used in DEIS II        |

\* Alphanumeric is Picture X, Numeric is Picture 9.

### 5.3.2 Outputs

The DEIS II subsystem generates the reports listed below. More detail on their formats is contained in the function descriptions.

- Transaction Proof Listing
- DEIS II Monthly Activities Not Reporting
- DEIS II Activities Reporting Changes
- Monthly/Quarterly Region and State Summary
- Monthly Utilities by DOE Region/CINC
- Energy Consumption Report
- Conservation Performance Report
- Building Conservation Report
- Energy Use Report
- Ad Hoc Reports

### 5.3.3 Data Base

The DEIS II data base will be constructed using the INQUIRE DBMS. Figure 5-2 shows a schema of the data base. It is expected that the on-line data base will contain (not including any overhead) approximately 19,340,000 characters. See Appendix B for descriptions of the data items.

## 5.4 DEIS II Subsystem Program Descriptions

DEIS I subsystem programs are described in the following paragraphs. The functions are presented in the sequence in which they will typically be used during a DEIS II reporting cycle.

### 5.4.1 Separate DEIS I and DEIS II Data

The processing required for this function exists at DLA and will be used without modification. This function is explained in more detail in 4.4.1.

### 5.4.2 Sort DEIS II Data

The processing required for this function includes a standard ascending sort on five data fields.

FIGURE 5-2

DEIS II SCHEMA

|                | <u>length</u> |
|----------------|---------------|
| <u>DoDAAC*</u> | 6             |
| -Service       | 1             |
| -Major Command | 10            |
| -DOE Region    | 2             |
| -State/Country | <u>2</u>      |
|                | 21            |

DATES (4 characters - 47 occurrences)

| <u>PRODUCTS</u>             | 3        | <u>ENVIRONMENT</u>             |          | <u>ANNUAL DATA</u> |                                    |
|-----------------------------|----------|--------------------------------|----------|--------------------|------------------------------------|
| Inventory                   | 8        | Degree Days (heat)             | 4        | Old Bldgs.         |                                    |
| Consumption                 | 8        | Degree Days (cool)             | 4        | Owned              | - Number                         5 |
| Variance Code               | 2        | Personnel Days<br>(resident)   | 6        | Leased             | - Number                         4 |
| Funded Consumption          | 8        | Personnel Days<br>(industrial) | <u>6</u> | - Sq. Ft.          | 5                                  |
| Btu Content                 | 6        |                                |          | New Bldgs.         |                                    |
| Component Use               | 8        |                                |          | Owned              | - Number                         4 |
| Date of Update              | 6        |                                |          | - Sq. Ft.          | 5                                  |
| Correction Code             | 1        |                                |          | New Bldgs.         |                                    |
| New Building<br>Consumption | <u>6</u> |                                |          | Leased             | - Number                         4 |
|                             |          |                                |          | - Sq. Ft.          | 5                                  |
| TOTAL                       | 53       | TOTAL                          | 20       | ECIP (\$000)       | 5                                  |
|                             |          |                                |          | O&M (\$000)        | <u>5</u>                           |
|                             |          |                                |          | TOTAL              | 48                                 |

Average of 3 products per date =  $3*(6+4+3+53)+20 = 218$  characters per date  
 47 dates = 10,246 characters per DoDAAC per year.

1100 DoDAACs give a data base size (excluding annual data) of 11.3 million characters.

Annual data are  $(48+6) * 1100 = 59,400$  additional characters.

\* Keys are underlined

#### 5.4.2.1 Purpose

The purpose of this function is to order the data elements for more efficient editing of the data and updating of the data base in subsequent processing steps.

#### 5.4.2.2 Data Definition

The following data will be used as sort keys:

DoDAAC  
Reporting Date (Year)  
Reporting Date (Month)  
Product Code (for MEB 2 cards only)  
Card Number

A more detailed description of these data items can be found in Appendix B.

#### 5.4.2.3 Processing Logic

All records submitted from the field will be sorted and passed to the edit and convert data function described in 5.4.3.

#### 5.4.2.4 Output

The output of this function is a file containing sorted records.

### 5.4.3 Edit and Convert Data

This function will test MEB card data items for format, completeness, and reasonableness. It will convert any units not reported in Btu to Btu equivalents. In addition, this function will check whether the data were previously submitted and convert data which pass the edits to the format required to update the DEIS II data base.

#### 5.4.3.1 Purpose

The purpose of this function is to edit/validate DEIS II product information, to produce a Transaction Proof Listing and file of those records which fail the edit criteria, and to format acceptable data for updating the data base.

#### 5.4.3.2 Data Definition

DEIS II data items fall into four categories. The first category (described in this section) is the energy usage data received monthly from field activities. The second category is the annual building-related data and energy conservation funding data received annually from field activities. The second category is also described in this section. The third category consists of degree day data received monthly from the National Climatic Center. The fourth category is coded information, which is changed infrequently. The third category is defined in 5.4.4 and the fourth is defined in 5.4.6. All data items are described in more detail in Appendix B.

### 5.4.3.3. Processing Logic

A previously edited, revised, and/or corrected record will contain an "E" in position 79. If this product record fails a second edit, it will be placed on the Rejection File and the Transaction Proof Listing (with a message that the second edit failed). It will also update the data base. In this way, correct data that fail the edit criteria for the data can be processed. The following paragraphs specify the edit criteria for the data common to both MEB card types and the MEB-specific data listed in Table 5-3. Figure 5-3 provides a flow chart of the major processing steps in the data edit and conversion function.

#### 5.4.3.3.1 Common Data Edits

There are five MEB data cards, MEB 2, MEB 4, MEB 5, MEB 6 and MEB 7. (There is no MEB 3 card.) Data may be offset by one column because the space is missing between the card type (MEB) and the card number. Similarly, there may be a missing blank or an extra blank between the card number and the date, the date and the DoDAAC, or the DoDAAC and the product code (on MEB 2). If this is the case, insert or delete the blank before checking the validity of the data. A card image of the data as submitted and the action taken will be printed on the Transaction Proof Listing. Other misalignments will be errors.

Two data elements are common to the MEB data cards: DoDAAC and Reporting Date. In all instances, the DoDAAC being submitted must match a DoDAAC in the data base. If there is no match, the input record will be written on the Rejection File and printed on the Transaction Proof Listing with a message such as DoDAAC NOT ON FILE.

The date (month, year) of each MEB card must be less than or equal to the date of the period being reported. To facilitate this validation, the correct date may be submitted on a parameter card. If the input date is more than four months older than the reporting period date, the record/records must be printed with an error message indicating an OUT-OF-DATE-CHANGE.

If the input date is ahead of the correct date (such as 0491 when the correct date is 0481), the record will be written on the Rejection File, and printed with an error message such as INVALID DATE.

The Product Code on the MEB 2 must match acceptable/valid Product Codes established on the coded information portion of the data base. If there is no match, write the record on the Rejection File and print it on the Transaction Proof Listing with a message INVALID PRODUCT CODE.

There are no further edits of the MEB 5 card. Its use is described further in 5.4.9.3.6. Annual data submitted on the MEB 6 and MEB 7 cards are described in 5.4.3.3.7.

#### 5.4.3.3.2 MEB-Specific Edits

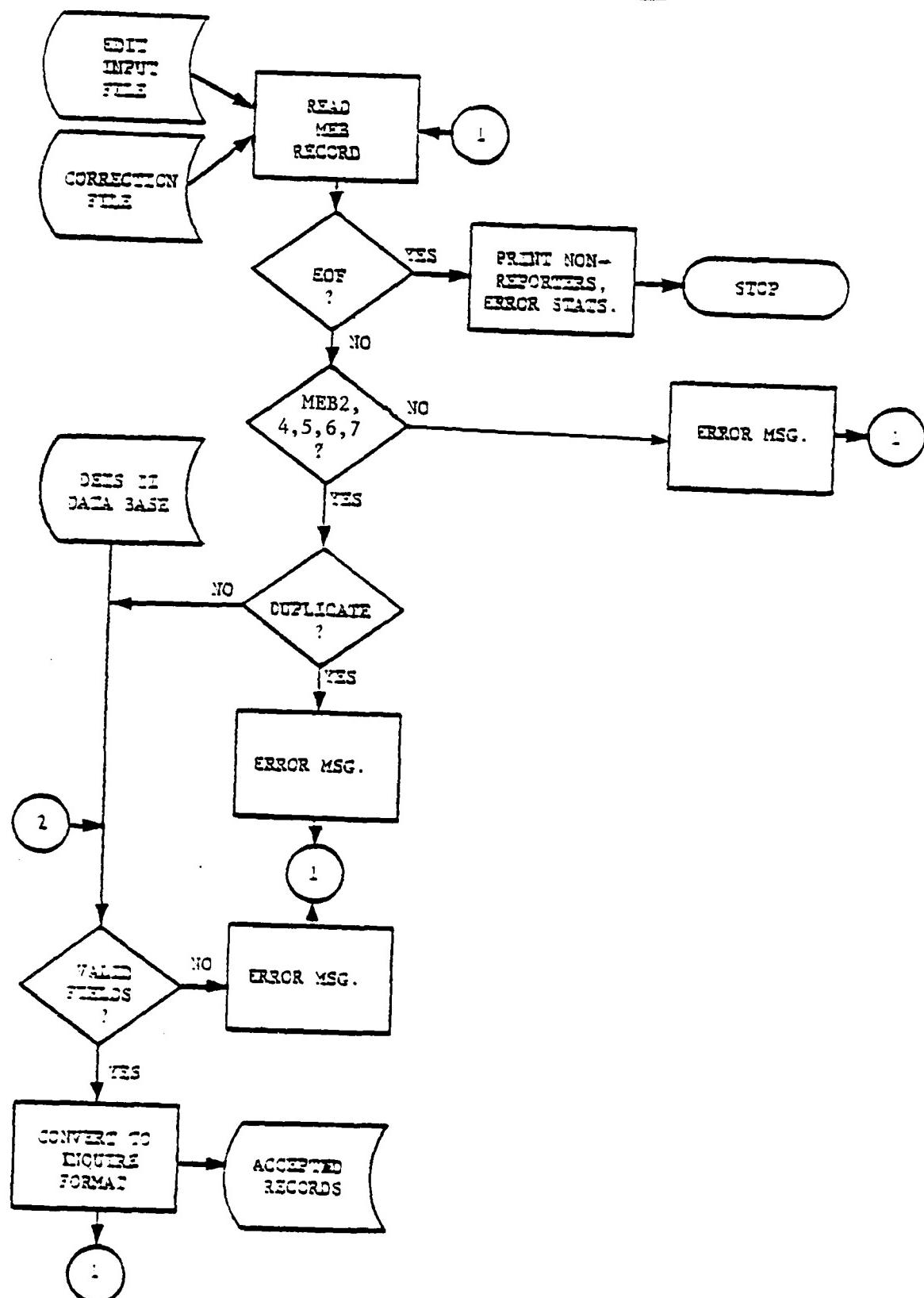
All data will be treated as new (add) transactions unless there is a "C" in column 80, a record already in the data base, or "D" (delete code) in column

TABLE 5-3  
DEIS II MONTHLY DATA EDITS

| Card  | Data Element Description | Card Column | Edit Criteria/Comments   |
|-------|--------------------------|-------------|--|
| MEB 2 |                          | 22          | Must be blank  |
|       | Inventory                | 23-30       | Numeric, zero or blank. If numeric within 10% of value of inventory a year ago. Used only for product codes ANC, COL, PPG and WUD otherwise an error |
|       |                          | 31-33       | Must be blank  |
|       | Btu Conversion           | 34-39       | Numeric, zero, or blank. If numeric positive, within 10% of standard value for this product. If blank, insert the standard value                     |
|       |                          | 40          | Must be blank  |
|       | Consumption              | 41-48       | Numeric, within 10% of value of this month a year ago  |
|       |                          | 49          | Must be blank  |
|       | Variance Code            | 50-51       | Numeric or blank. If numeric, must be valid code for this Service. Valid codes are in Appendix D   |
|       |                          | 52          | Must be blank  |
|       | Funded Consumption       | 53-60       | Numeric, zero, or blank; less than or equal to Consumption   |
|       |                          | 61          | Must be blank  |
|       | Component Use            | 62-69       | Numeric or blank   |
|       |                          | 70-79       | Not used by DEIS II  |
|       |                          | 80          | For use by DFSC  |
| MEB 4 |                          | 22          | Must be blank  |
|       | Personnel-Qtr            | 23-28       | Numeric or blank   |
|       |                          | 29          | Must be blank  |
|       | Personnel-Ind            | 30-35       | Numeric or blank   |
|       |                          | 36          | Must be blank  |
|       | Degree days, cooling     | 37-40       | Numeric or blank. If numeric, must be within 10% of Weather Service report   |
|       |                          | 41          | Must be blank  |
|       | Degree days heating      | 42-45       | Numeric or blank. If numeric, must be within 10% of Weather Service report   |
|       |                          | 46          | Must be blank  |
|       | New Building Consumption | 47-52       | Numeric, zero or blank   |
|       |                          | 53-79       | Not used by DEIS II  |
|       |                          | 80          | For use by DFSC  |

FIGURE 5-3

DEIS II EDIT AND CONVERT DATA



80. Every add transaction will be checked for duplication either of previously reported data in the month (for example, two MEB 2 cards with the same Product Code DoAAC, and Date) or duplication of a data base record. If there are two MEB 2 add transactions with the same DoAAC, Product Code and Date, the second record will be written on the Rejection File and printed on the Transaction Proof Listing with a message DUPLICATE. This indicates that a correction has been made and one set of data is incorrect. If all 80 columns are duplicated, the second transaction will be ignored. If the add transaction matches a record on the data base exactly, the add transaction will be ignored. If the add transaction matches a record on the data base on just the DoAAC, Product Code, and Date, treat the transaction as if it is a change transaction (see Section 5.4.3.3.3.).

There may or may not be a MEB 4 card submitted. There should be only one MEB 4 card submitted from each DoAAC each month. If there are multiple MEB 4 cards for the same date and DoAAC, print an error message such as DUPLICATE, print the card images, and place the record on the Rejection File.

All numeric quantity fields on the MEB 2/4 will be validated. If the field is neither blank nor numeric, print the entire input record with a message indicating FIELD NOT NUMERIC.

If blank columns of the MEB 2/4 are filled, this indicates an error, and the input record should be placed on the Rejection File. The input record will be placed on the Transaction Proof Listing with a message such as DATA OVERLAP.

Validation of other data on the MEB 2/4 input records is shown in Table 5-3. The Consumption and Funded Consumption fields may need to be converted from reported units to Btu before the edit criteria are met. See 5.4.3.3.6 for conversion criteria. All records in error will be printed on the Transaction Proof Listing. If no prior inventory or degree day data are available, print an informational message indicating BLANK VALUES, DATA NOT VERIFIED. Records containing an error will not update the data base unless they have been previously edited and contain an "E" in column 79.

#### 5.4.3.3.3 Change Transaction Edits

Change transactions (cc 80 = C or a MEB card for a record in the data base) must match a record in the data base on DoAAC, Product Code and Date. If no match is found, print a message beside the transaction on the Transaction Proof Listing indicating UNMATCHED. If the change matches a data base record, overlay the old data with the new data. This overlay will not, however, be accomplished before all of the validation identified for an add transaction is performed. If the change data fail the edits, reject the new data, print the data as an error on the Transaction Proof Listing, and place it on the Rejection File.

#### 5.4.3.3.4 Delete Transaction Edits

Delete transactions (CC 1 - 5 = MEB 2 and CC 80 = D) must match on the DoAAC, Date, and Product Code (for MEB 2). If an exact match does not occur, print

the delete transaction on the Transaction Proof Listing with a message indicating UNMATCHED and place the transaction on the Rejection File. If there is an exact match, delete the data associated with the DoDAAAC, Date, and Product Code combination from the data base. Beside the transaction on the Transaction Proof Listing, print a message indicating DATA BASE DELETION and the data which were deleted.

#### 5.4.3.3.5 Non-Reporting Activities Edits

Those activities (DoDAAACs) in the data base for which no data were received should be printed on the Activities Not Reporting listing. This listing will print the DoDAAAC and its header data (Region/CINC Code, State/Country Code, Installation Name, Major Command and Service/Agency Code for the DoDAAAC). These data will be taken from the coded information file. In addition, all the Product Codes reported for this DoDAAAC the previous month will be listed.

Should the activity not reporting be one that has not reported for more than the prior month, print all of the header data but leave the Product Code field blank. If the activity has not reported for 3 consecutive months, also print a message such as REVIEW HEADER. Activities not reporting for more than 3 consecutive months will be considered closed or inactive.

Activities not reporting the same Product Codes as in the prior month will be reported on the Activities Reporting Changes listing. This listing will be developed by comparing data reported for a DoDAAAC in the current month to data reported for that same DoDAAAC in the prior month. If a DoDAAAC reported a product in the prior month, but not in the current month, that DoDAAAC and Product Code will be printed with a message such as NON-SUBMISSION.

If a DoDAAAC reports a product not reported in a prior month, the data base will be updated (if all edits are passed), and the line will be printed as above, identified as a NEW-SUBMISSION.

During the October (annual) reporting cycle, those activities which have not submitted MEB 5, MEB 6 and MEB 7 data will also be included on the Activities Not Reporting Listing.

#### 5.4.3.3.6 Conversion

For products not reported in Btu, the Inventory, Consumption, and Funded fields will be converted to Btu. These fields will be stored in the data base in Btu, not in the original reported units. The calculations, Consumption x Btu Content = Consumption and Funded x Btu Content = Funded, will be rounded to the nearest whole number. If a Btu Conversion Factor is input, it will be used. If the Btu Conversion Factor field is blank (zero), the standard conversion factor will be entered into the field. The standard conversion factors are given in Table 5-4.

Data which pass the edits will be converted from MEB card format to the format required for INQUIRE data base updating. Data that fail the edit criteria will be written on the Transaction Proof Listing and the Rejection File in their original units.

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TABLE 5-4  
STANDARD CONVERSION FACTORS

| <u>Product Code</u>                      | <u>Reporting Unit</u> | <u>Btu Conversion Factor</u> |
|--|-----------------------|------------------------------|
| ELC                                      | MWH                   | 11,600,000 Btu/MWH           |
| NAG                                      | SCF                   | 1031 Btu/SCF                 |
| DF1, DF2, FS1, FS2<br>KSN, KDS, NSF, FSX | Barrels               | 5,825,000 Btu/Barrel         |
| FS4, FS5, FS6, FSL                       | Barrels               | 6,287,000 Btu/Barrel         |
| SHW                                      | Pounds of Steam       | 1340 Btu/Pound of Steam      |
| ANC                                      | Short Ton             | 25,400,000 Btu/Short Ton     |
| COL                                      | Short Ton             | 24,580,000 Btu/Short Ton     |
| PPG                                      | Gallon                | 95,000 Btu/Gallon            |
| PHO                                      | KWH                   | 11,600 Btu/KWH               |
| SOL                                      | KWH                   | 3412 Btu/KWH                 |
| WND                                      | KWH                   | 3412 Btu/KWH                 |
| WUD                                      | Short Ton             | 17,000,000 Btu/Short Ton     |
| SLP                                      | Barrels               | 5,000,000 Btu/Barrel         |
| GEO                                      | Pounds of Steam       | 1340 Btu/Pound of Steam      |
| HYD                                      | KWH                   | 3412 Btu/KWH                 |
| RDF                                      | Short Ton             | 6,000,000 Btu/Short Ton      |
| FCL                                      | KWH                   | 11,600 Btu/KWH               |
| FOR                                      | Barrels               | 5,000,000 Btu/Barrel         |

#### 5.4.3.3.7 Annual Data Edits

Building data will be added to the data base annually in October via the MEB 6 data input card. Eight fields, number of existing buildings that are owned, total square footage for these buildings, number of existing buildings that are leased, total square footage for these buildings, number of new buildings that are owned and their total square footage, and the number of new buildings that are leased and their total square footage. The record layout for MEB 6 is shown in Appendix C. Each of these fields contains a blank (zero) or positive numeric value and should be within 3% of the value reported the prior year. If no data are available for the prior year, the value should be within 10% of the value reported in the baseline year. If there are no data available for the baseline year, a message to that effect should be printed and the data added to the data base. Other records in error will be listed on the Transaction Proof Listing and will be placed on the Error File. Figure 5-4 shows the processing logic for this function.

Energy conservation funding data will be added to the data base in October via the MEB 7 data input card. Two types of fields, one containing ECIP money expended for the current and prior four years (in \$000s) and the other containing O&M money expended in \$000s for energy conservation projects will be reported. The record layout for MEB 7 is shown in Appendix C. Each of these fields should contain a blank (zero) or positive numeric value. No other editing is done on these fields. These funding data will not be reported until fiscal year 1983.

MEB 5 data reporting the types of energy used is not stored in the data base. It is described in more detail in 5.4.9.3.6.

#### 5.4.3.4 Outputs

There are six outputs from this function:

1. Records which have passed the data edits and are converted to INQUIRE data base update format will be written to the data base. As many as 2400 records may pass the data edits at one time.
2. Records which have passed the data edits will be printed in DoDAAC order on an Accepted Records listing. A sample of this report layout is given in Figure 5-5.
3. Records which fail the data edits will be written on the Rejection File. As many as 1000 records may fail the data edits at one time. Because of this volume, this file should be arranged for selective as well as sequential access.
4. Records which fail the data edits will be printed on the Transaction Proof Listing. This listing will contain the image of the record on the Rejection File and the appropriate error messages. Multiple error messages may be printed. A sample of this report layout is given in Figure 5-6.

FIGURE 5-4  
HOUSING DATA BASE UPDATE PROCESSING LOGIC

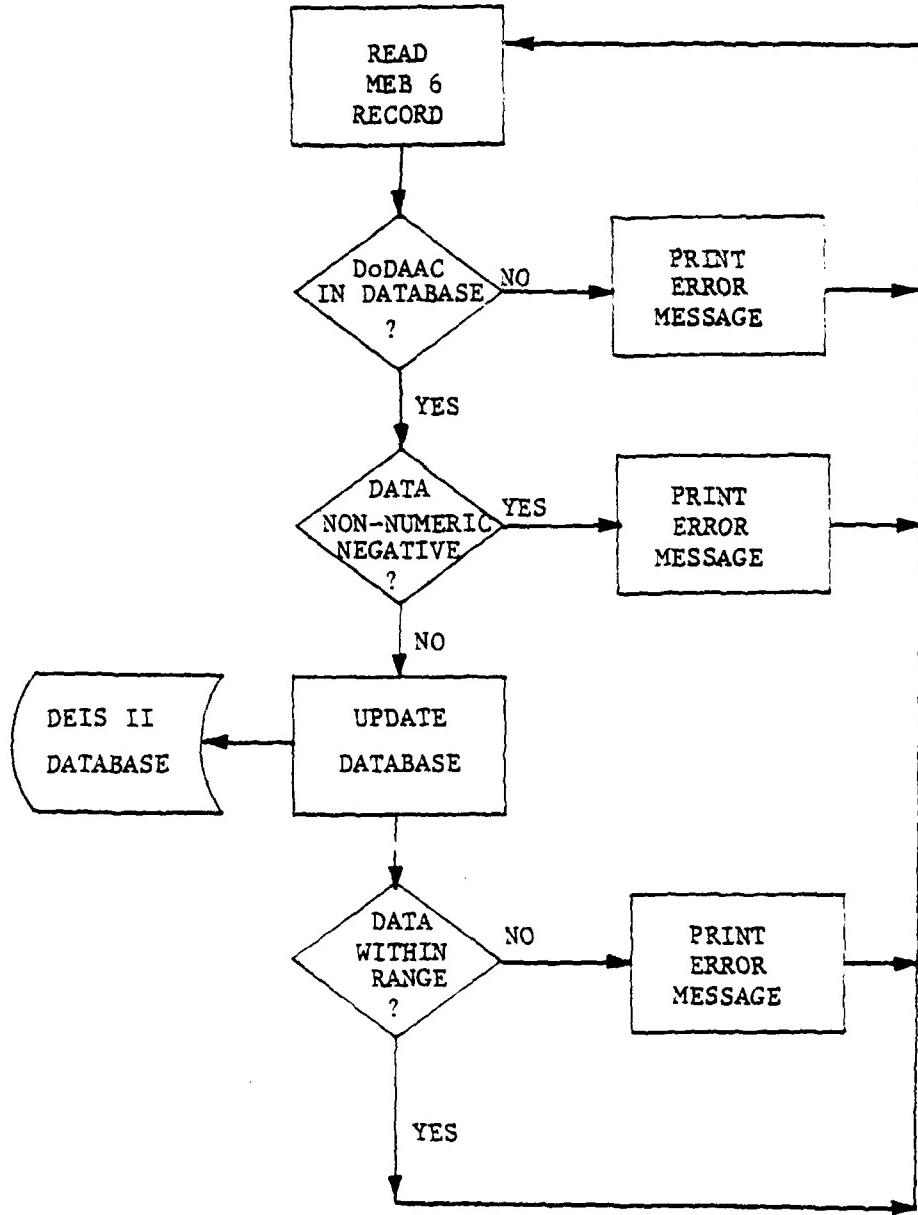


FIGURE 5-5  
ACCEPTED RECORDS LISTING

| ACCEPTED RECORDS |        |                     |           |           |            |           |        |          |           |
|------------------|--------|---------------------|-----------|-----------|------------|-----------|--------|----------|-----------|
| MONTH DD MM YY   |        | MONTH DD MM YY 19XX |           |           |            |           |        |          |           |
| PROD             | DATAAC | CODE                | LINEN     | BIL       | CONSUM     | VAR       | FUNDED | SERVICE  |           |
| MEB X            | Xxxxx  | XXXXXXX             | XXX XXXXX | XXXXXX    | XXXXXXXXXX | XX        | XXXXXX | XXXXXXX  |           |
| MEB 2            | 0380   | N00246              | E1C       | 000000000 | 0000115    | 000004202 | 01     | 00001200 | 000000000 |
| MEB 2            | 0380   | N00246              | HRC       | 000001050 | 0000500    | 00000250  | 00     | 00000250 | 000001200 |

TRANSACTION PROOF LISTING

| DATA AS SUBMITTED |          | INVENTORY | BTU    | CONSUME | VAR                  | ERROR MESSAGE        |
|-------------------|----------|-----------|--------|---------|----------------------|----------------------|
| RUN ON            | MM/DD/YY | XXXXXX    | XXXXXX | XXXXXX  | CLD FUNDED C CONSUME | (C)                  |
|                   |          | XXXXXX    | XXXXXX | XXXXXX  | XX XXXXXX XXXXXXXX   | 7980                 |
|                   |          | X         | 0176   | XXXXXX  | XXXXXX               | C OUT OF DATE CHANGE |
|                   |          |           |        |         |                      |                      |

5. Activities which did not submit data, or submitted changes in Product Codes, will be printed on the DEIS II Monthly Activities Not Reporting and DEIS II Activities Reporting Product Changes listings. Samples of these reports are given in Figures 5-7 and 5-8.
6. Error statistics showing the number of error messages for each DoDAAAC is printed, will be produced at the end of each edit run. This listing will be sent to the system operator, DFSC-CB.

#### 5.4.4 Update Data Base--Data from Other Systems

One type of data from other systems will be used to create part of the DEIS II data base. This data is related to heating and cooling degree days at each reporting installation. Degree day information will be processed monthly. The actual data base update is performed mainly through features of the generalized DBMS.

##### 5.4.4.1 Purpose

The purpose of this function is to add data needed in DEIS II but collected by other reporting systems. Data need be reported by an installation/activity only if it is known that data from the central source are inaccurate (for example, the climate at a base may differ from the climate at the nearest weather station).

##### 5.4.4.2 Data Definition

The data items input to this function are shown in Table 5-5. The degree day data will be received on magnetic tape from the National Climatic Center. This tape will contain the heating and cooling degree days for each month for fiscal years 1975 to 1980 for weather stations identified by a six-digit number. Appendix E shows the correspondence of weather station identifiers to DoDAAACs. Both heating degree days and cooling degree days are four-digit numeric (positive or zero) fields. The data input tape will contain 23-character records. There will be 20 records in a block. The tapes will be written as unlabeled, 800 BPI, 9 track, EBCDIC odd parity tapes. There will be one month of data per file on the tape.

##### 5.4.4.3 Processing Logic

The weather station identifier and degree days will be read from the NCC tape, and the corresponding DoDAAAC or DoDAAACs will be located by means of Appendix E. Degree days may also be submitted by an activity on a MEB 4 card. If no data have been entered in the data base for the DoDAAAC, both the heating and cooling degree days will be added to the data base. If degree days were reported by the DoDAAAC, they will not be changed by NCC data. If the NCC data differs from that submitted by the activity (DoDAAAC) by more than 10%, an information message will be printed.

The degree days for the current month will be compared to the degree days of the same month a year ago. If the difference between the yearly data is more than 10%, a message to that effect (HEATING (or COOLING) DEGREE DAYS MORE



FIGURE 5-8

DEIS II ACTIVITIES WITH PRODUCT CHANGES

TABLE 5-5

DEIS II DATA FROM  
OTHER SYSTEMS

| Data Element No. | Data Element Description | NCC Record | Edit Criteria/Comments                            |
|------------------|--------------------------|------------|---|
| NA               | Weather Station ID       | 1-6        | Match a table of valid ID and translate to DoDAAC |
| NA               | Date (YY,MM)             | 7-10       | Valid year, month (Oct. 74 to present)            |
|                  | Blank                    | 11         |   |
| 15               | Heating Degree Days      | 12-15      | Numeric, positive, or zero                        |
|                  | Blank                    | 16         |   |
| 7                | Cooling Degree Days      | 17-20      | Numeric, positive, or zero                        |
| NA               | Base Temp.               | 21-23      | Not used in DEIS II                               |

(LESS) THAN 10% ABOVE (BELOW) LAST YEAR) will be printed. The DoDAAAC, date, current degree days and previous year's degree days will also be printed. Figure 5-9 shows the processing logic of the weather data update.

In addition, all weather data will be numeric, non-negative integers. Data submitted which are non-numeric or negative will be printed with the appropriate error message. All data will be added to the data base unless they are non-numeric or negative.

#### 5.4.4.4 Outputs

The outputs of this function are an updated DEIS II base and a Transaction Proof Listing containing the error messages specified above. Figure 5-10 gives a sample of the messages on the Transaction Proof Listing for this function. If a DoDAAAC has weather data but is not on the DEIS II data base, an error message will be printed.

### 5.4.5 Update Data Base--Data from Activities

This function is performed through the generalized DBMS capabilities and provides for updating the data base with records that have passed the edits. The data base update will occur at least once a month, and possibly two or three times each month, because of changes and late reports.

#### 5.4.5.1 Purpose

The purpose of this function is to add, change, and delete data in the data base. This includes the ability to add new data fields or delete existing ones through reorganization of the data base. (Such reorganization will only take place after consultation with users and AFDSC.)

#### 5.4.5.2 Data Definition

The data items used in this function are shown in Table 5-3. A more detailed description of each data item can be found in Appendix B.

#### 5.4.5.3 Processing Logic

Records that passed the edits described in 5.4.5 will be applied by means of the DBMS to the DEIS II data base in batch mode. The input records will be saved as a transaction log. Any data rejected by the DBMS will be placed on the Rejection File for subsequent data correction.

#### 5.4.5.4 Output

The outputs of this function are an updated DEIS II data base, a Rejection File containing MEB data, and a Transaction Proof Listing containing MEB data and error messages.

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**FIGURE 5-9** WEATHER DATA BASE UPDATE PROCESSING LOGIC

**FIGURE 5-10**  
**TRANSACTION PROOF LISTING (WEATHER)**

#### 5.4.6 Maintain Tables

Part of the DEIS II data base will contain clear (uncoded) text for the coded data and distribution lists for each report. There will also be a list of Conversion Factors for converting products submitted in various units to a standardized Btu value. Maintenance of these tables will be coordinated by the DEIS system operator. The actual update of these tables will be performed by AFDSC.

##### 5.4.6.1 Purpose

This function will provide for maintenance of data tables used for translating codes and converting consumption values. The codes ensure that when summaries by Major Command, Region/CINC, State, or Service are required, the appropriate accumulations can be performed. Maintenance of distribution lists for each of the DEIS II reports will help ensure that all persons receive their reports promptly. The Conversion Factors will help ensure accurate conversion of the data collected.

##### 5.4.6.2 Data Definition

The data items maintained by this function are listed in Table 5-6. These data items may be input on-line. The current DEIS II maintains a Header File on tape with MEB 1 records as shown in Appendix C. A more detailed description of each data item is shown in Appendix B.

##### 5.4.6.3 Processing Logic

Queries, translations, and updates to the part of the DEIS II data base containing coded information are supported through AFDSC.

Table 5-6 contains the edit criteria for adding new data or validating changes to existing data. A DoAAC is never deleted from the file, but it may be marked INACTIVE when an installation/facility is closed. To deactivate coded information about an installation, the DoAAC must match one on the file. Table 4-8 contains the translations for Region Codes and State/Country Codes.

Table 4-9 contains the translations for Service/Agency Codes. Product Code translations are in Table 5-7. Distribution list codes are in Table 5-8.

Actual update of the data base need not be completed on-line. However, there may be occasions when corrected codes are needed before reports are run and timely report generation is a requirement. Figure 5-11 shows the major processing steps of this function.

##### 5.4.6.4 Outputs

Outputs from this function are updated coded information tables. In addition, on request, a copy of any category of coded information (data elements in Table 5-6) may be requested. At the user's option, the output from this request may be printed/displayed at the user's terminal or directed to a printer at AFDSC for mailing to the user. Listings by Installation Name will

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TABLE 5-6

CODED DATA BASE ITEMS

| Data Element No. | Data Element Description | MEB 1 Card Column | EDIT Criteria/Comments  |
|------------------|--------------------------|-------------------|---|
| NA               | Identification           | 1-5               | MEB 1   |
| 12               | DoDAAC                   | 12-17             | Cannot be blank or zero. Must match a DoDAAC in the file                                  |
| 13               | DODC                     | 18                | DoDAAC delete code, D or blank  |
| 26               | Region Code              | 19-20             | Cannot contain blanks or be zero. Must match a code in Table 4-7. Two characters long     |
| 33               | State/Country Code       | 22-23             | Cannot contain blanks or be zero. Must match a code in Table 4-7. Two characters long     |
| 16               | Installation Name        | 25-64             | Cannot contain only blanks  |
| 19               | Major Command            | 65-78             | Cannot contain only blanks  |
| 30               | Service/Agency Code      | 79                | Must be A, B, F, H, N, M, D, S, or T  |
| 24               | Product Code             | NA                | Cannot contain blanks or zeros. Must match a code in Table 5-8. Three characters long     |
| 6                | Conversion Factors       | NA                | Numeric, positive. Table 5-4 contains the valid values                                    |
| 11               | Distribution Code        | NA                | Cannot contain blanks or zeros. Table 5-9 contains the valid codes and their translations |

TABLE 5-7  
UTILITY PRODUCT IDENTIFICATION CODES

---

| <u>Product</u>                | <u>Product Code</u>  |
|-------------------------------|--|
| Electricity                   | ELC  |
| Natural Gas                   | NAG  |
| Coal (Bituminous)             | COL  |
| Coal (Anthracite)             | ANC  |
| Purchased Steam/<br>Hot Water | SHW  |
| Fuel Oil                      | FSX, DF1, DF2, FS1, FS2, KSN, KDS,<br>NSF, FSX, FS4, FS5, FS6, FSL |
| Photovoltaic                  | PHO  |
| Solar Thermal                 | SOL  |
| Wind Power                    | WND  |
| Wood                          | WUD  |
| Geothermal                    | GEO  |
| Propane, Butane, LNG          | PPG  |
| Refuse-Derived Fuels          | RDF  |
| Hydroelectric                 | HYD  |
| Fuel Cells                    | FCL  |
| Off Specification Fuel        | SLP  |
| Fuel Oil Reclaimed            | FOR  |

---

TABLE 5-8  
DEIS II REPORT DISTRIBUTION CODES

---

| <u>Code</u> | <u>Report Name</u>                     | <u>Report Recipients</u>  |
|-------------|--|---------------------------|
| Monthly     |  |                           |
| 2M01        | Region and State Summary               | (a)                       |
| 2M02        | Energy Consumption Report              | OASD(MRA&L)               |
| 2M03        | Air Force Utilities                    | OASD(MRA&L), Air Force    |
| 2M04        | Navy Utilities                         | OASD(MRA&L), Navy         |
| 2M05        | Marine Corps Utilities                 | OASD(MRA&L), Marine Corps |
| 2M06        | Army Utilities                         | OASD(MRA&L), Army         |
| 2M07        | DLA Utilities                          | OASD(MRA&L), DLA          |
| 2M08        | Utilities Report by DOE<br>Region/CINC | (a)                       |
| 2M09        | Activities Not Reporting               | OASD(MRA&L), DFSC         |
| 2M10        | Activities Not Reporting<br>by Product | OASD(MRA&L), DFSC         |

---

(a) DFSC, Naval War Research Center/Stanford Research Institute (NWRC), OJCS, Atlantic Command, Panama Canal (Navy), USEUCOM, DALO-TSE-A, AFLGY/F, OASD(MRA&L), USAGMPA.

TABLE 5-8  
DEIS II REPORT DISTRIBUTION CODES (Continued)

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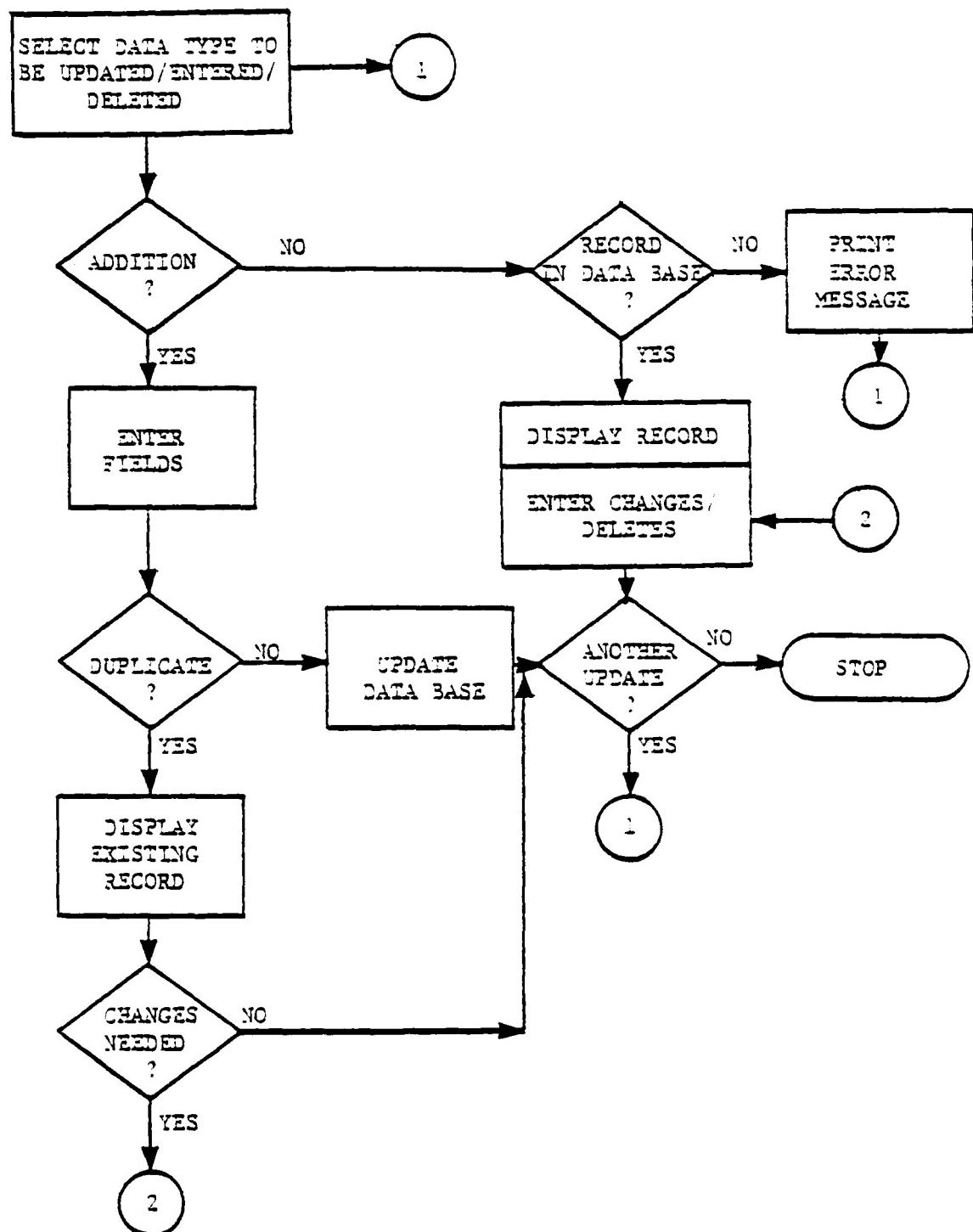
| <u>Code</u> | <u>Report Name</u>              | <u>Report Recipients</u>  |
|-------------|---------------------------------|---------------------------|
| Quarterly   |                                 |                           |
| 2Q01        | Region and State Summary        | (b)                       |
| 2Q02        | Energy Consumption Report       | OASD(MRA&L)               |
| 2Q03        | Air Force Utilities             | OASD(MRA&L), Air Force    |
| 2Q04        | Navy Utilities                  | OASD(MRA&L), Navy         |
| 2Q05        | Marine Corps Utilities          | OASD(MRA&L), Marine Corps |
| 2Q06        | Army Utilities                  | OASD(MRA&L), Army         |
| 2Q07        | DLA Utilities                   | OASD(MRA&L), DLA          |
| 2Q08        | Conservation Performance Report | (b)                       |

---

(b) DFSC-CB, OASD(MRA&L), AFLGY/F, AFBCC, AFCOS/LRGX, DA(DCS/L), USAGMPA, CINCPAC, CNET, CINCLANT, CINCEUR, CNO OP-41, NWRC, USMC(HQ)

FIGURE 5-11

MAINTAIN DEIS II DATA



be arranged in alphabetical sequence by name and will contain the following fields:

Installation Name  
Major Command  
DoDAAC  
Service/Agency Code  
Region Code  
State/Country Code

Listings by DoDAAC will be in alphabetical sequence by DoDAAC and will contain the same six fields listed above, the DoDAAC being printed first on the line rather than Installation Name. For both of these reports, one line will be skipped when the first letter in the name/DoDAAC changes.

Listings of the other codes will be in the order specified on Tables 4-8, 4-9, 5-4, 5-8, and 5-9. For all the reports, page breaks are required only when the page limit is reached.

#### 5.4.7 Perform On-Line Data Entry of Corrections

This function is performed only through the system operator (DFSC-CB). The system operator will have both a hard copy listing of the records in error with error messages (Transaction Proof Listing) and access to the Rejection File. The Rejection File and the listing will be in the same sequence. All errors or questionable data from the edit and convert data and data base update functions will be on one Rejection File. Corrections may be made by up to four people simultaneously or to different segments of the Rejection File. Response to the entering of data on the Correction File should be 1 to 3 seconds under normal circumstances.

Records which are changed (or marked as changed) during the correction process may contain a "C" in column 80 or an "E" in column 79 of the record believed to be in error. All these records will undergo subsequent re-editing, and those card images containing an "E" in column 79 will update the data base even if the data fail the edits specified in 5.4.4. Records can also be completely deleted or added through this function.

##### 5.4.7.1 Purpose

This function provides an easy-to-use, fast method to correct errors or add records and submit the corrected data for further processing.

##### 5.4.7.2 Data Definition

The data items input to this function are corrections to the MEB card images described in Table 5-3 and in Appendix B.

##### 5.4.7.3 Processing Logic

All records in error will be on the Rejection File in the original (as submitted) units. Each record will be displayed for the system operator to

correct, to mark as correct with an "E," or to leave unmarked so that further editing may again reject the record. All corrected records from the Rejection File will be placed on the Correction File. The data on the Rejection File are then deleted so that unchanged and subsequent editing errors will be the only data on the Rejection File. Figure 5-12 gives the major processing steps of this function.

#### 5.4.7.4 Output

The output of this function is a Correction File containing MEB records for input to the edit and convert data function. The data on this file are the same as those described in 5.4.7.2.

#### 5.4.8 Archive Data Base

After the time-sensitive processing of DEIS II data is complete, data base maintenance in the form of archiving will be performed. This archiving entails creating quarterly summaries for data older than 13 months and deleting detail no longer needed on-line from the data base. Figure 5-13 shows a schema of the data base before and after archival.

##### 5.4.8.1 Purpose

The archival process provides a method for keeping all needed DEIS II data on-line without overloading the data base to the point where processing time and data storage requirements are excessive. Monthly detail data are needed for the baseline (1975) and for the most recent 13-month period. Quarterly summary data are needed for the 5 years prior to the most recent 13-month period. After monthly data has been archived, only the quarterly (on-line) data will be updated. The Service/agency is responsible for keeping a record of all of these individual monthly transactions in the event that they wish to update and receive new monthly reports from the archived data.

Data deleted from the on-line data base will be kept off-line in a format that allows easy creation of a data base for the specified time period. In addition, this function will supplement AFDSC procedures to back up the on-line data base.

##### 5.4.8.2 Data Definition

Data items used in this function include the Reporting Date (for selection purposes) and all data items in the data base. The data are transferred to off-line storage and deleted from on-line storage. First, however, new quarterly totals may be calculated for a given DoDAAC and Product Code. The data items are described in Appendix B.

##### 5.4.8.3 Processing Logic

Monthly data are placed in archival storage at the end of a quarter. Data for months one and two of a quarter will simply be added to the data base. Thus there will be 14 months of monthly data on-line after data for the first month of a quarter has been added. There will be 15 months of data on-line after

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FIGURE 5-12  
DEIS II ON-LINE CORRECTIONS

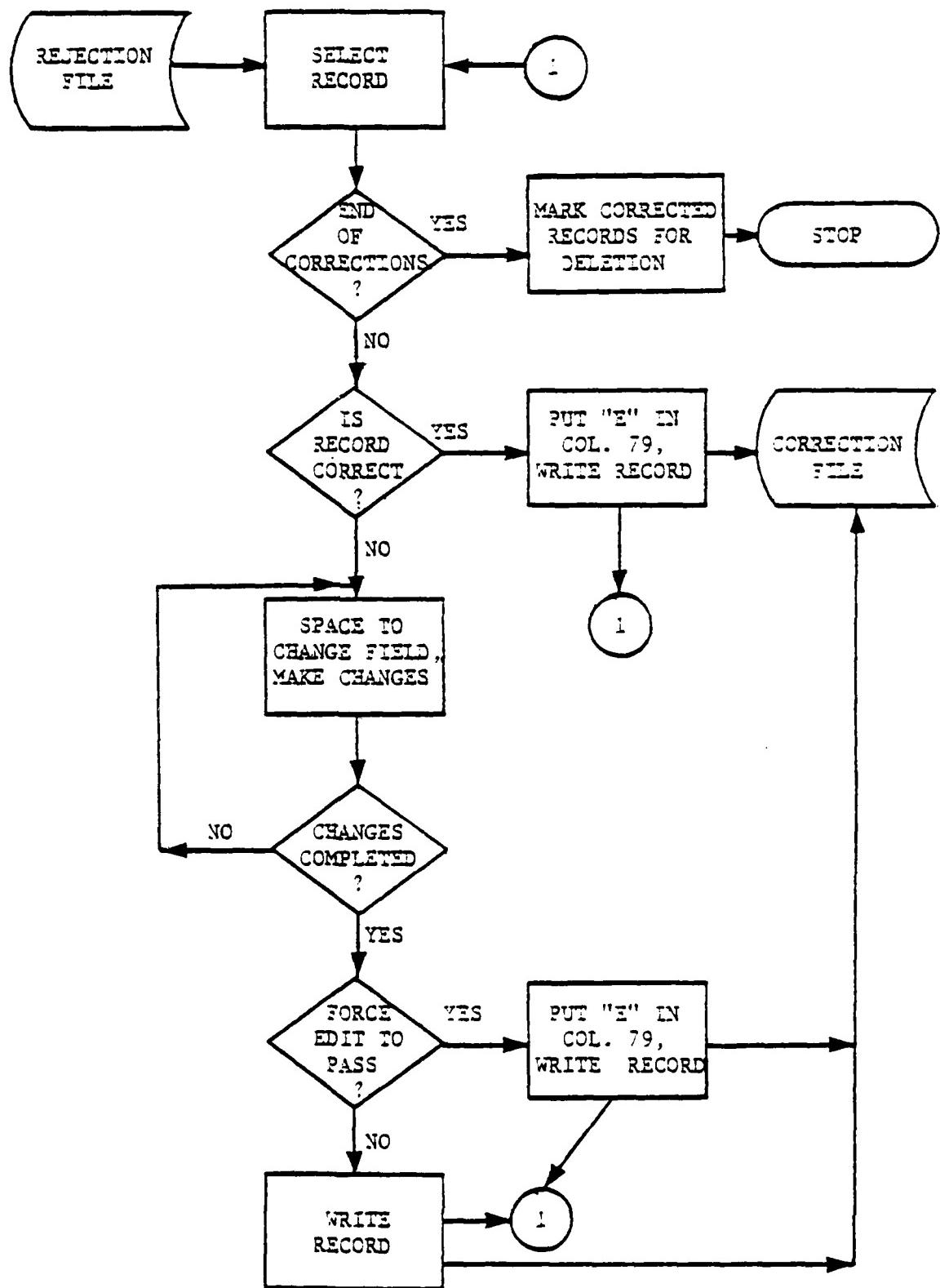


FIGURE 5-13

SCHEMA OF DB BEFORE AND  
AFTER ARCHIVAL

Case 1—Data to be archived are for a month at the beginning of a quarter—done after update for month 3 of a quarter.

Before

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       | Monthly Data (15 months) |       |       |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|--------------------------|-------|-------|-----|-------|-------|
| 01/75              | ... | 12/75 | Q1/75               | ... | Q4/79 | 10/79                    | 11/79 | 12/79 | ... | 11/80 | 12/80 |
| To Be Removed      |     |       |                     |     |       |                          |       |       |     |       |       |

After

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       | Monthly Data (13 months) |     |     |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|--------------------------|-----|-----|-----|-------|-------|
| 01/75              | ... | 12/75 | Q2/75               | ... | Q1/80 | 01/80                    | ... | ... | ... | 12/80 | 01/81 |
| Added              |     |       |                     |     |       |                          |     |     |     |       |       |

Case 2—Data are for month 1 or 2 of a quarter.

Before

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       | Monthly Data (13 months) |       |     |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|--------------------------|-------|-----|-----|-------|-------|
| 01/75              | ... | 12/75 | Q2/75               | ... | Q1/80 | 01/80                    | 02/80 | ... | ... | 12/80 | 01/81 |

After

| Baseline Data (12) |     |       | Quarterly Data (20) |     |       | Monthly Data (14 months) |     |     |     |       |       |
|--------------------|-----|-------|---------------------|-----|-------|--------------------------|-----|-----|-----|-------|-------|
| 01/75              | ... | 12/75 | Q2/75               | ... | Q1/80 | 01/80                    | ... | ... | ... | 01/81 | 02/81 |
| Added              |     |       |                     |     |       |                          |     |     |     |       |       |

data for the second month of a quarter has been added. There will be 13 months of data on-line after data for the third month of a quarter have been added to the data base and the oldest three months of monthly data have been accumulated into quarterly data.

Quarterly data for that quarter will be developed by adding all fields except identification fields. The identification fields are the Command, Service, Region, State, and Product fields for each DoDAAC. The Reporting Date (month) field will be changed to reflect Q1, Q2, Q3, or Q4 of the fiscal year. The monthly data items for that DoDAAC can then be written to the archival file and deleted from the on-line data base. If the quarterly data are to be taken off-line, the data will simply be copied to archival storage and deleted from the on-line data base. Five years of quarterly data will be maintained in the on-line data base and the quarterly data will also be archived.

It is expected that INQUIRE facilities will be used for this function so that creating an INQUIRE data base containing those months or quarters of the archival data can be completed with a minimum of trouble. The request procedure for restoring archival data will be contained in the DEIS user's manual. Figure 5-14 shows the major processing steps of this function.

#### 5.4.8.4 Outputs

The output of this function is an updated data base and an INQUIRE format archival file of the records purged.

#### 5.4.9 Produce Preformatted Reports

The function will produce all regular existing DEIS II reports. The reports may be prepared through the host language interface with the DBMS.

##### 5.4.9.1 Purpose

DEIS II preformatted reports include all regularly scheduled reports distributed to DEIS users. As new reports or changes to existing reports are identified, reports that are run regularly for distribution to one or more persons may be specified as preformatted. Ad hoc reports that become regularly scheduled may be reprogrammed, using the host language interface.

##### 5.4.9.2 Data Definition

All fields contained in the data base (see Appendix B) are used in producing the preformatted reports. Except for some code translation and totals of some fields, data from the data base are printed on the reports unchanged.

##### 5.4.9.3 Processing Logic

The processing logic for each report is explained in the following paragraphs. A list of all the Product Codes and their translations will be provided on a separate page at the beginning of each set of reports. Figure 5-15 shows a sample of this header page.

FIGURE 5-14  
ARCHIVE DEIS II DATA BASE

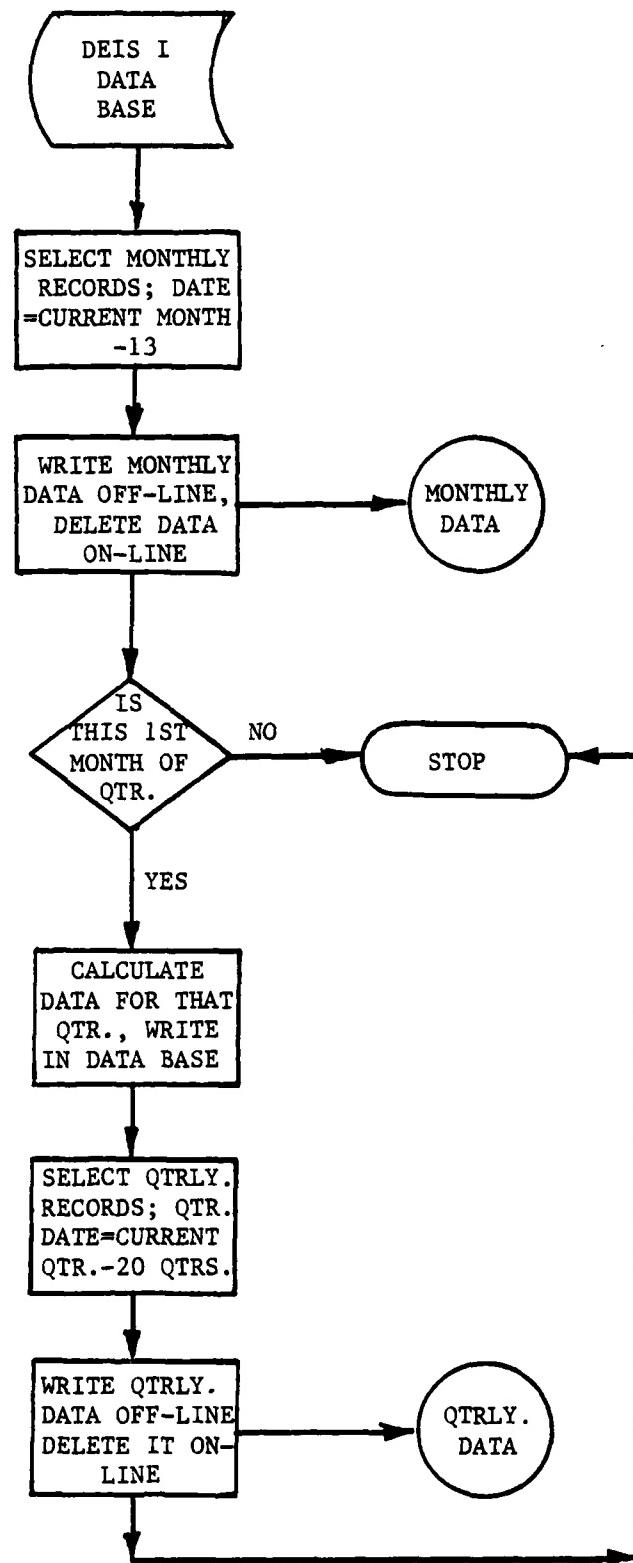


FIGURE 5-15

DEIS II REPORT HEADER SHEET

#### 5.4.9.3.1 Monthly/Quarterly Region and State Summary

The DEIS II Monthly/Quarterly Region and State Summaries are reports of product/consumption data for the specified month or quarter. These reports require reference to the DEIS II data base, coded information, and some calculations.

Figure 5-16 shows the layout for the monthly report. The quarterly report is the same except that the data are for the quarter specified in the title. There are subtotals for each product for each DoDAAC for the quarter.

There is a subtotal for each region as well as a grand total for the report. Regions and states will be printed in the order listed in Table 4-6. The report should have page breaks at each change of region as well as when the page limit is reached.

#### 5.4.9.3.2 Monthly/Quarterly/Cumulative Utilities by DOE Region/CINC

The DEIS II Monthly Utilities by DOE Region/CINC summary reports product consumption data, including the amount of product used in the units originally reported. Because the data base stores only Btu, the Btu Conversion Factor must be used to convert data to the original units for the report.

Figure 5-17 shows the layout for this report. Regions will be printed in the order listed in Table 4-8, and fields will contain the subtotals for that region. The sum of all the subtotals must equal the sum of all the detail Current Consumption fields. Page breaks are required at each change of region as well as when the page limit is reached.

The quarterly and cumulative reports provide the same information as the monthly report except that all the data (excluding inventory) are cumulative for the quarter or year-to-date, respectively. Inventory is the end of reporting period inventory value. There are subtotals for each product and DoDAAC for the quarter/year-to-date. The title is changed to DEIS II QUARTERLY UTILITIES BY DOE REGION/CINC, X QUARTER 19XX for the quarterly report, and to DEIS II CUMULATIVE UTILITIES BY DOE REGION/CINC, END OF XXXXXXXXXX (Month) 19XX for the cumulative report.

There are subtotals for each Major Command for each product listed after the detail data. The final pages of the report contain totals for each Service.

#### 5.4.9.3.3 Energy Consumption Reports

The monthly/quarterly/year-to-date Energy Consumption Report lists Service consumption data by DoDAAC within Major Command. Each product used by a DoDAAC is reported. Totals of each product are produced for each Service/Agency and for all DoD. Figure 5-18 shows the layout for this report.

#### 5.4.9.3.4 Conservation Performance Report

The DEIS II Conservation Performance Report is produced quarterly to show the change in consumption over the same period in 1975. Each Service/Agency's

**DEIS III UTILITIES BY REGION/STATE**

FIGURE 5-16

| DEIS III MONTHLY UTILITIES |                   |                      |               |
|----------------------------|-------------------|----------------------|---------------|
| REGION/SUMMARY             |                   |                      |               |
| MONTH OF XXXXXXXXXX 19XX   |                   |                      |               |
| POE/REGION/CITY: X         | CURRENT INVENTORY | BASELINE CONSUMPTION | CHANGE        |
| X                          | X,XXX,XXX,XXX     | X,XXX,XXX,XXX        | X,XXX,XXX,XXX |
| ELECTRICITY                | 786,330           | 798,600              | -10,1         |

| DEIS III UTILITIES |                   |                      |               |
|--------------------|-------------------|----------------------|---------------|
| SUMMARY: STATE     |                   |                      |               |
| SUMMARY: CITY      |                   |                      |               |
| POE/REGION/CITY: X | CURRENT INVENTORY | BASELINE CONSUMPTION | CHANGE        |
| X                  | X,XXX,XXX,XXX     | X,XXX,XXX,XXX        | X,XXX,XXX,XXX |

FIGURE 5-17

## DEIS II UTILITIES BY DOE REGION/CINC

**FIGURE 5-18**  
**SERVICE ENERGY CONSUMPTION REPORTS**

| SERVICE ENERGY CONSUMPTION REPORTS |            |                      |                     |                      |                     |          |         |         |             |
|------------------------------------|------------|----------------------|---------------------|----------------------|---------------------|----------|---------|---------|-------------|
| MONTH OF XXXXXXXXXX 19XX           |            |                      |                     |                      |                     |          |         |         |             |
| X - X (Service)                    |            |                      |                     |                      |                     |          |         |         |             |
| MAJOR COMMAND                      | XXXXXXXXXX | PRODUCT TYPE         | INVENTORY           | BASELINE CONSUMPTION | CURRENT CONSUMPTION | % CHANGE | MAX USE | MIN USE | UNIT COST   |
| CONSUMING ACTIVITY                 | X          | X                    | X                   | X                    | X                   | X        | X       | X       | 1/2         |
| 05761 FORKWOOD, WI                 | 05761      | ELC                  | 0                   | 1,000                | 7,700               | 10.0     | 0.0     | 0       | 56.97       |
| MAN IN MM YY                       | MAN        | X                    | X                   | X                    | X                   | X        | X       | X       | PAGE XXXX   |
|                                    |            |                      |                     |                      |                     |          |         |         |             |
| SERVICE ENERGY CONSUMPTION REPORTS |            |                      |                     |                      |                     |          |         |         |             |
| MONTH OF XXXXXXXXXX 19XX           |            |                      |                     |                      |                     |          |         |         |             |
| X - X SUMMARY (service)            |            |                      |                     |                      |                     |          |         |         |             |
| MAJOR COMMAND                      | XXXXXXXXXX | PRODUCT TYPE         | INVENTORY           | BASELINE CONSUMPTION | CURRENT CONSUMPTION | % CHANGE | MAX USE | MIN USE | SERVICE USE |
| CONSUMING ACTIVITY                 | X          | X                    | X                   | X                    | X                   | X        | X       | X       | 1           |
| TOTAL FOR X (service)              | X          | X                    | X                   | X                    | X                   | X        | X       | X       | X           |
| PRODUCT TYPE                       | INVENTORY  | BASELINE CONSUMPTION | CURRENT CONSUMPTION | % CHANGE             | SERVICE USE         | 1        | 1       | 1       | 1           |
| X                                  | X          | X                    | X                   | X                    | X                   | X        | X       | X       | X           |

total product consumption is shown for both CONUS and overseas. There are also CONUS, overseas, and worldwide summary pages. Figure 5-19 shows the layout of this report. A page break is required for each new Service and for the CONUS, overseas, and worldwide summary pages.

#### 5.4.9.3.5 Buildings Report

The DEIS II Buildings Report is produced annually to show energy consumed and the square footage of buildings within the DoD. The heating and cooling degree days and personnel days are the total for the fiscal year. Figure 5-20 shows the layout of this report for each Service and for total DoD. A page break is required for each new Service and for the total.

#### 5.4.9.3.6 Type of Energy Used Report

The DEIS II Type of Energy Used Report is produced annually to show the uses of energy on an installation. These data are gathered each October on the MEB 5 data cards and are not stored in the data base. In the event that a product code is not reported by an installation during the MEB 5 submission, there will be no output line produced for the unreported products. Table 5-9 shows the layout for the MEB 5 cards. There may be up to three MEB 5 cards per DoDAAC. Figure 5-21 shows the layout of this report.

### 5.4.10 Ad Hoc Reports

This function will provide macros to extract data from the DEIS II data base.

#### 5.4.10.1 Purpose

Queries to the DEIS II data base from users other than the system operator will be of two types. One type of query will be simply to retrieve certain data elements, based on user-specified selection criteria, and display the data. At times, simple arithmetic operations may be requested on the data. For this type of ad hoc report, the macros should assign any files and invoke any processors that may be needed, as well as assist the user to create query statements.

The second type of query will be to extract and store selected data elements for further processing by SPSS or equivalent programs. In particular, linear regression, time series cross tabulation, and one-way analysis of variance statistical procedures may be performed on selected data elements.

#### 5.4.10.2 Data Input

The user should have to provide a minimum of data to produce ad hoc reports. Defaults for table headings should exist. The user should be allowed to direct the output from the session.

The following are samples of the queries that may be requested:

- Display the data for DoDAAC = XXXXXX, Reporting Date = MMYY, and Product Code = XXX.

Rev. A

FIGURE 5-19

## DEIS II CONSERVATION PERFORMANCE REPORT

FIGURE 5-20

DEIS II BUILDINGS REPORT

RUN ON DD MM YY

PAGE XXXX

DEIS II BUILDINGS REPORT

AS OF SEPTEMBER 30, 19XX

DODAAC      INSTALLATION NAME

XXXXX X-----X

| BUILDINGS                                 |  |                                       | NEW OWNED<br>NUMBER SQ. FT.<br>(000) | NUMBER SQ. FT.<br>(000) | TOTAL<br>NUMBER SQ. FT.<br>(000) | DEGREE DAYS<br>HEAT COOL. | PERSONNEL<br>DAYS |
|---|--|---------------------------------------|--------------------------------------|-------------------------|----------------------------------|---------------------------|-------------------|
| EXISTING OWNED<br>NUMBER SQ. FT.<br>(000) | EXISTING LEASED<br>NUMBER SQ. FT.<br>(000) | NEW LEASED<br>NUMBER SQ. FT.<br>(000) |                                      |                         |                                  |                           |                   |
| XXXX XXX,XXX                              | XXXX XX,XXX                                | XXXX XX,XXX                           | XXXX XX,XXX                          | XXXX XX,XXX             | XXXX XXX,XXX                     | XXXX XXX                  | XXXX              |

TABLE 5-9  
MEB 5 RECORD LAYOUT

| Card Column   | Data Item                        | Value/Comments    |
|---------------|----------------------------------|-------------------|
| All Cards 1-5 | Card ID                          | MEB 5             |
| 6             | Blank                            |                   |
| 7-12          | DoDAAC                           |                   |
| 13            | Blank                            |                   |
| 14-17         | Reporting Date                   | Month, Year       |
| 18-20         | Blank                            |                   |
| 21            | Card 1,2, or 3                   |                   |
| 22            | Blank                            |                   |
| Card 1 23-26  | Uses for Electricity             | H,W,P,C,V or zero |
| 27            | Blank                            |                   |
| 28-31         | Uses for Natural Gas             | H,W,P,C,V or zero |
| 32            | Blank                            |                   |
| 33-36         | Uses for Fuel Oil                | H,W,P,C,V or zero |
| 37            | Blank                            |                   |
| 38-41         | Uses for Steam/Hot Water         | H,W,P,C,V or zero |
| 42            | Blank                            |                   |
| 43-46         | Uses for Anthracite Coal         | H,W,P,C,V or zero |
| 47            | Blank                            |                   |
| 48-51         | Uses for Bituminous Coal         | H,W,P,C,V or zero |
| 52            | Blank                            |                   |
| 53-56         | Uses for Propane/LPG             | H,W,P,C,V or zero |
| 57            | Blank                            |                   |
| 58-61         | Uses for Diesel                  | H,W,P,C,V or zero |
| 62-80         | Blank                            |                   |
| Card 2 23-26  | Uses for Photovoltaic            | H,W,P,C,V or zero |
| 27            | Blank                            |                   |
| 28-31         | Uses for Solar Thermal           | H,W,P,C,V or zero |
| 32            | Blank                            |                   |
| 33-36         | Uses for Wind Power              | H,W,P,C,V or zero |
| 37            | Blank                            |                   |
| 38-41         | Uses for Wood                    | H,W,P,C,V or zero |
| 42            | Blank                            |                   |
| 43-46         | Uses for Off Specification Fuel  | H,W,P,C,V or zero |
| 47            | Blank                            |                   |
| 48-51         | Uses for Geothermal              | H,W,P,C,V or zero |
| 52            | Blank                            |                   |
| 53-56         | Uses for Cogeneration            | H,W,P,C,V or zero |
| 57            | Blank                            |                   |
| 58-61         | Uses for Refuse-Derived Fuels    | H,W,P,C,V or zero |
| 62-80         | Blank                            |                   |
| Card 3 23-26  | Uses for Reclaimed Bilge/Lub Oil | H,W,P,C,V or zero |
| 27            | Blank                            |                   |
| 28-31         | Uses for Hydroelectric           | H,W,P,C,V or zero |
| 32            | Blank                            |                   |
| 33-36         | Uses for Fuel Cells              | H,W,P,C,V or zero |
| 37-80         | Blank                            |                   |

FIGURE 5-21

DEIS II ENERGY USE REPORT

RUN ON DD MM YY

DEIS II ENERGY USE REPORT  
AS OF SEPTEMBER 30, 19XX

PAGE XXXX

| DODAAC                      | INSTALLATION NAME | PRODUCT TYPE   | I (MAJOR)                   | USES    |     |                | EFFICIENCY FACTORS |          |           |
|-----------------------------|-------------------|----------------|-----------------------------|---------|-----|----------------|--------------------|----------|-----------|
|                             |                   |                |                             | 2       | 3   | 4              | HEATING            | COOLING  | PERSONNEL |
| XXXXXX X-                   | -X X-----X        | X              | X                           | X       | X   | X              | 77 Curr.           | 75 Curr. | XX        |
| NO3467 WASHINGTON SHIP YARD | ELECTRICITY       | H              | C                           | W       | V   | 70             | 75                 | 80       | 85        |
|                             |                   |                |                             |         |     | 70             |                    |          | 70        |
| TOTAL CONSUMPTION           |                   | PERCENT CHANGE |  |  | CONSUMPTION PER SQUARE FOOT |         |     | PERCENT CHANGE |                    |          |           |
| 75                          | CURRENT           |                | 75                          | CURRENT |     |                |                    |          |           |
| XXX,XXX                     | XXX,XXX           | XXX            | XXX                         | XXX     | XXX |                |                    |          |           |

- What is the total consumption of electricity for quarter X of fiscal year X (including the current fiscal year)? Multiply this number by 11.6 to give total consumption in MBTU.
- What is the total consumption of Product Codes SHW, WUD, SOL for quarter X of the current fiscal year?
- What is the total consumption of each Product Code multiplied by the Btu Content Conversion factor? What is the total of the resulting Btu consumptions?
- What fraction of total consumption (measured in Btu calculated as above) comes from electricity, natural gas, coal, solar?
- Compare the current year's total consumption divided by total square footage to 1975 total consumption divided by total square footage. What is ratio of square footage of old buildings to that of new buildings?
- Compare the current month's total consumption divided by degree days to the total consumption divided by degree days for this month last year. What is the percentage change?

#### 5.4.10.3 Output

Output will be printed on the originating terminal, directed to another (high-speed) printer, or saved in a file for further processing. In addition, at the user's option, the statements used to generate the query may be saved for future use and modification.

APPENDIX A  
DEIS I DATA DICTIONARY

This description of the DEIS I data items is separated into two categories, static data and dynamic data. Static data are defined as those data which are used mainly for reference during an operation and are usually generated or updated in timeframes independent of normal runs. In the DEIS-80 environment, this consists of the coded information portion of the data base.

Dynamic data include all data which are intended to be added, changed, or deleted by a normal run or during on-line operations. For DEIS I, this is the installation/activity data about petroleum products.

Within each category, the elements are listed in alphabetical order. The format type, length (no characters), source, number of occurrences, frequency of update or submission, definition, and edit criteria are given for each data element. The dynamic data are shown in Table A-1. The static data are shown in Table A-2.

TABLE A-1

DEIS I DYNAMIC DATA

| Data Element Number | Element Name | Format Type Length | Source                               | Required          | Number of Occurrences               | Frequency of Update/ Submission | Edit Criteria                              | Description/Alias                                |
|---------------------|--------------|--------------------|--------------------------------------|-------------------|-------------------------------------|---------------------------------|--|--|
| 1                   | AVIATION     | N 6                | MEA 3 cc 51-56                       | No                | 1 per Product Code, per DoDAAC      | Monthly                         | Numeric, * positive or blank**             | Credit Cards, Form 15/44, into Plane             |
| 2                   | Avg Day      | N 7                | Calculated                           | Yes, unless TAC=9 | 1 per Product Code, per DoDAAC      | Monthly                         | Numeric, 1 decimal place                   | Average Daily Consumption                        |
| NA                  | CARDNO       | N 1                | MEA cc 5                             | Yes               | 1 per Card                          | NA                              | 2, 3, or 4                                 | Not kept in DB                                   |
| NA                  | CARDTY       | A 3                | MEA cc 1-3                           | Yes               | 1 per Card                          | NA                              | MEA  | Not kept in DB                                   |
| 3                   | CLOSINV      | N 7                | MEA 2 cc 55-61                       | Yes               | 1 per Product Code, per DoDAAC      | Monthly                         | Numeric, positive                          | Closing Inventory                                |
| 4                   | CARRIER      | N 7                | MEA 2 cc 19-45                       | No                | 1 per Product Code, per DoDAAC      | Monthly                         | Numeric, positive                          | Commercial Receipts                              |
| 5                   | CONSUM       | N 7                | Calculated, Sum of elements' numbers | Yes, unless TAC=9 | 1 per Product Code, per DoDAAC      | Monthly                         | Numeric, positive or zero if TAC=9         | Total Consumption                                |
| 6                   | CORRECT      | N 1                | Generated                            | No                | 1 per Product Code, per DoDAAC      | As Needed                       | Number of Changes to this Record (up to 9) |  |
| 7                   | DATEUP       | N 6                | System Date                          | No                | 1 per Product Code, per DoDAAC      | As Needed                       | Month, Day, Year                           | Date of Latest Update                            |
| 9                   | DoDACC       | AN 6               | MEA cc 7-12                          | Yes               | 1 per Card, up to 1400 unique codes | Monthly                         | Valid code on file                         | DoD Activity Address Code, UIC, Base/Facility ID |
| 11                  | DoDRCPT      | N 7                | MEA 2 cc 47-53                       | No                | 1 per Product Code, per DoDAAC      | Monthly                         | Numeric, positive or blank                 | Receipts from DoD                                |
| 12                  | INTERTRAN    | N 6                | MEA 4 53-57                          |                   | 1 per Product Code, per DoDAAC      | Monthly                         | Numeric, positive or blank                 | Inter-Service Transfers                          |
| 13                  | INTRATRAN    | N 6                | MEA 4 cc 47-51                       | No                | 1 per Product Code                  | Monthly                         | Numeric, positive                          | Intra-Service Transfers                          |

\* All numeric (N) fields are integer values unless a decimal value is specified.

\*\* Numeric fields that are blank on input are registered as zero in the data base.

**TABLE A-1 (continued)**  
**DEIS I DYNAMIC DATA**

| Data Element Number | Element Name | Format Type Length | Source         | Required          | Number of Occurrences           | Frequency of Update/ Submission | Edit Criteria  | Description/Alias                                 |
|---------------------|--------------|--------------------|----------------|-------------------|---------------------------------|---------------------------------|--|---|
| 15                  | ISSUES       | N 7                | MEA 2 cc 31-37 | Yes               | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive  | All fuel issued                                   |
| 16                  | LSSSD        | N 6                | MEA 3 cc 44-49 | No                | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive or blank   | Amount downgraded or lost                         |
| 18                  | NONDOD       | N 5                | MEA 4 cc 41-45 | No                | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive  | All issues to non-DOD                             |
| 19                  | OPENINV      | N 7                | MEA 2 cc 23-29 | Yes               | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive equal to CLOSINV of previous month                                   | Opening Inventory                                 |
| 21                  | PRODCODE     | AN 3               | MEA cc 19-21   | Yes               | Up to 43 per DoDAAAC            | Monthly                         | Valid code on file   | Product Code                                      |
| 22                  | PRIMARY      | N 6                | MEA 3 cc 23-28 | Yes, unless TAC=9 | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive  | Primary Use                                       |
| 23                  | QUANT1       | N 5                | MEA 4 cc 23-27 | No                | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive or blank (0)   | Quantity issued to "a," Sold To                   |
| 24                  | QUANT2       | N 5                | MEA 4 cc 29-33 | No                | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive or blank (0)   | Quantity issued to "b," Sold To                   |
| 25                  | QUANT3       | N 5                | MEA 4 cc 35-39 | No                | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive or blank (0)   | Quantity issued to "c," Sold To                   |
| 29                  | RPTDATE      | AN 4               | MEA cc 14-17   | Yes               | 1 per card                      | Monthly                         | Month (01 to 12) and Year > 75 and < current year or quarter (Q1, Q2, Q3, Q4) and year | Reporting date, AS OF or Quarter for Summary data |

TABLE A-1 (continued)

DEIS I DYNAMIC DATA

| Data Element Number | Element Name | Format Type Length | Source         | Required | Number of Occurrences           | Frequency of Update/ Submission | Edit Criteria              | Description/Alias |
|---------------------|--------------|--------------------|----------------|----------|---------------------------------|---------------------------------|----------------------------|-------------------|
| 30                  | SECOND       | N 6                | MEA 3 cc 30-35 | No       | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric or blank           | Secondary Use     |
| 33                  | SERVICE3     | N 6                | MEA 3 cc 38-63 | No       | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive or blank | Service Use MEA 3 |
| 34                  | SERVICE4     | N 5                | MEA 4 cc 59-63 | No       | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric, positive or blank | Service Use MEA 4 |
| 38                  | TAC          | N 1                | MEA 2 cc 13    | No       | 1 per card                      | Monthly                         | Blank or 9                 | DFSC Facility     |
| 39                  | THIRD        | N 6                | MEA 3 cc 37-42 | No       | 1 per Product Code, per DoDAAAC | Monthly                         | Numeric or blank           | Tertiary Use      |

**TABLE A-2**  
**DEIS I STATIC DATA**

| Data Element Number | Element Name | Format Type Length | Source       | Required                   | Number of Occurrences | Frequency of Update/ Submission | Edit Criteria | Description/Alias                                  |
|---------------------|--------------|--------------------|--------------|----------------------------|-----------------------|---------------------------------|---------------|--|
| 8                   | DISTRIB      | AN 4               | DBA          | Yes                        | 25                    | As Needed                       |               | Distribution Code                                  |
| 9                   | DoDAAC       | AN 6               | DoD 4000.25D | Yes, if it consumes energy | 1400                  | As Needed                       |               | DoD Activity Address<br>Code UIC, Base/Facility ID |
| 10                  | DoDC         | A 1                | DBA          | No                         | 1 per DoDAAC          | As Needed                       | Blank or D    | DoDAAC delete code                                 |
| 14                  | INSTALL      | AN 50              | Services     | Yes                        | 1 per DoDAAC          | As Needed                       |               | Installation Name                                  |
| 17                  | MAJCOM       | AN 10              | Services     | Yes                        | 1 per DoDAAC          | As Needed                       |               | Major Command                                      |
| 20                  | PROD         | A                  | DoD 4140.25M | Yes                        | 43                    | As Needed                       |               | Products   |
| 21                  | PROD CODE    | AN 3               | DoD 4140.25M | Yes                        | 43                    | As Needed                       | Valid Code    | Product Codes                                      |
| 27                  | RECIPIENT    | AN 150             | DBA          | Yes                        | 40                    | As Needed                       |               | Address of Recipients of Reports                   |
| 27                  | REGION       | AN 28              | Table 4-6    | Yes                        | 18                    | As Needed                       |               | Region/CINC Name                                   |
| 28                  | REGIONC      | AN 2               | Table 4-6    | Yes                        | 18                    | As Needed                       |               | Region/CINC Code                                   |
| 31                  | SERVICE      | A 20               | Table 4-7    | Yes                        | 9                     | As Needed                       |               | Service/Agency Name                                |
| 32                  | SERVICEC     | A 1                | Table 4-7    | Yes                        | 9                     | As Needed                       |               | Service/Agency Code                                |
| 35                  | SHIPDT       | N 4                | DBA          | No                         | <106                  | As Needed                       | 9 or Blank    | Date ship is to be returned to service             |
| 36                  | STATE        | A 28               | Table 4-6    | Yes                        | 120                   | As Needed                       |               | State/Country                                      |
| 37                  | STATEC       | AN 2               | Table 4-6    | Yes                        | 120                   | As Needed                       |               | State/Country Code                                 |
| 38                  | TAC          | N 1                | DBA          | No                         | <100                  | As Needed                       | 9 or Blank    | DSFC facility                                      |

## APPENDIX B

### DEIS II DATA DICTIONARY

This description of the DEIS II data items is separated into two categories, static data and dynamic data. Static data are defined as those data which are used mainly for reference during an operation and are usually generated or updated in timeframes independent of normal runs. This includes square footage data since these data are entered annually. Also included as static data is the coded information portion of the data base.

Dynamic data include all data which are intended to be added, changed, or deleted by a normal run or during on-line operations. For DEIS II, this is the installation/activity data about utility energy consumption and the data supplied by the National Climatic Center on degree days.

Within each category of data, the elements are listed in alphabetical order. The format type, length (in characters), source, number of occurrences, frequency of updates or submission, edit criteria and definition are given for each data element. The dynamic data are shown in Table B-1, the static data are shown in Table B-2.

TABLE B-1  
DEIS II DYNAMIC DATA

| Data Element Number | Element Name | Format Type Length | Source   | Required | Number of Occurrences               | Frequency of Update / Submission | Edit Criteria   | Description/Alias   |
|---------------------|--------------|--------------------|--|----------|-------------------------------------|----------------------------------|---|---|
| 5                   | BURNIN       | N* 6               | MEB 2 cc 34-39                                 | No       | 1 per Product Code, per BOMAAC      | As Needed                        | Within 10% of Std. value                                    | Blu Content of Fuel, contains decimal point, as appropriate |
| NA                  | CARINO       | N 1                | MEB cc 5                                       | Yes      | 1 per Card                          | NA                               | 2 or 3  | Not kept in DB  |
| NA                  | CARDTY       | A 1                | MEB cc 1-1                                     | Yes      | 1 per Card                          | NA                               | NFB   | Not kept in DB  |
| 7                   | CDDAY        | N 4                | MEB 4 cc 37-40 or Nat'l. Climatic Center (NCC) | Yes      | 1 per BOMAAC                        | Monthly                          | Numeric, if from MEB 3 within 10% of value from NWS         | Cooling degree days   |
| 8                   | CONSUM       | N 8                | MEB 2 cc 41-48                                 | Yes      | 1 per Product Code, per BOMAAC      | Monthly                          | Numeric, positive, within 10% of value this month last year | Consumption, Current Consumption                            |
| 9                   | CORRECT      | N 1                | Generated                                      | No       | 1 per Product Code, per BOMAAC      | As Needed                        | Number of Changes to this Record (up to 9)                  |   |
| 10                  | DATEUP       | N 6                | System Date                                    | No       | 1 per Product Code per BOMAAC       | As Needed                        | Month, day, year  | Date of latest Update                                       |
| 12                  | BOMAAC       | AN 6               | MEB cc 12-17                                   | Yes      | 1 per Card, up to 1200 unique codes | Monthly                          | Valid code on file  | Bom Activity Address Code, Base/Facility ID, WIC            |
| 14                  | FUNDID       | N 8                | MEB 2 cc 51-60                                 | Yes      | 1 per Product Code per BOMAAC       | Monthly                          | Numeric, positive, < CONSUM                                 | Service Funded Consumption                                  |
| 15                  | HOLIDAY      | N 4                | MEB 4 cc 42-45 or NCC                          | Yes*     | 1 per BOMAAC                        | Monthly                          | Numeric, if from MEB 3, within 10% of value from NWS        | Heating degree days   |

\* All numeric (N) fields are integer values unless a decimal value is specified.

# Numeric (N) fields that are blank on input are registered as zero in the data base.

**TABLE B-1 (continued)**  
**DEIS II DYNAMIC DATA**

| Data Element Number | Element Name | Format Type Length | Source         | Required   | Number of Occurrences                    | Frequency of Update/ Submission | Edit Criteria   | Description/Alias  |
|---------------------|--------------|--------------------|----------------|--|--|---------------------------------|---|--|
| 17                  | INV          | N 8                | MEB 2 cc 23-30 | No, except for Fuel Oil, Coal Propane/LPG/butane, Wood | 1 per applicable Product Code per DoDAAC | Monthly                         | Numeric, positive, within 10% of value this month last year       | Inventory  |
| 19                  | NBCON        | N 6                | MEB 4 cc 47-52 | No   | 1 per DoDAAC                             | Monthly                         | Numeric, positive, or blank                                       | Consumption in New Buildings. Will not be reported until FY83  |
| 21                  | PERS1        | N 6                | MEB 4 cc 30-35 | No   | 1 per DoDAAC                             | Monthly                         | Numeric, positive, or blank                                       | Number of Personnel Days in Industrial Processes (Day workers) |
| 22                  | PERSQ        | N 6                | MEB 4 cc 23-28 | No   | 1 per DoDAAC                             | Monthly                         | Numeric, positive, or blank                                       | Number of Personnel Days in Quarters                           |
| 24                  | PRODCODE     | AN 3               | MEB cc 19-21   | Yes  | Up to 30 per DoDAAC                      | Monthly                         | Valid code on file  | Product Code   |
| 28                  | RPTDATE      | N 4                | MEB cc 7-10    | Yes  | 1 per Card                               | Monthly                         | Month (01 to 12) and Year > 75 and < current year                 | Reporting date, AS OF Date                                     |
| 34                  | UCM          | N 8                | MEB 2 cc 62-69 | No   | 1 per Product Code per DoDAAC            | Numeric, positive, or blank     | For use by component  |  |
| 35                  | VAR          | N 2                | MEB 2 cc 50-51 | No   | 1 per Product Code per DoDAAC            | Monthly                         | Numeric or blank, if numeric, must be valid code for this Service | Variance Code  |

**TABLE B-2**  
**DEIS II STATIC DATA**

| Data Element Number | Element Name | Format Type Length | Source              | Required | Number of Occurrences  | Frequency of Update/ Submission | Edit Criteria   | Description/Alias              |
|---------------------|--------------|--------------------|---------------------|----------|------------------------|---------------------------------|---|--------------------------------|
| 1                   | BLFASN       | N 4                | MEB 6 cc 54-57      | No       | 1 per DoDAAC, per year | Annually                        | Within 3% of value in previous year or 10% of base year | Number of New Leased Buildings |
| 2                   | BLEASO       | N 4                | MEB 6 cc 32-35      | No       | 1 per DoDAAC per year  | Annually                        | Within 3% of value in prior year or 10% of base year    | Number of Old Leased Buildings |
| 3                   | BHNN         | N 4                | MEB 6 cc 43-46      | No       | 1 per DoDAAC per year  | Annually                        | Within 3% of value in previous year or 10% of base year | Number of New Owned Buildings  |
| 4                   | BWNO         | N 5                | MEB cc 19-23        | Yes      | 1 per DoDAAC per year  | Annually                        | Same as above   | Number of Old Owned Buildings  |
| 6                   | BTUCOV       | N 6                | DRA                 | Yes      | 30                     | As Needed                       | Standard Bu Conversion Factor for Each Product          |                                |
| 11                  | DISTRIB      | AN 4               | DRA                 | Yes      | 25                     | As Needed                       | Distribution Code                                       |                                |
| 12                  | DODAAC       | AN 6               | DoD 4000.25D        | Yes      | 1200                   | As Needed                       | DoD Activity Address Code, Base/Facility ID, UIC        |                                |
| 13                  | DoDC         | AN 1               | DRA, MEB 1 cc 18    | No       | 1 per DoDAAC           | As Needed                       | DoDAAC Delete Code                                      |                                |
| 16                  | INSTAL       | AN 40              | MEB 1 cc 25-64      | Yes      | 1 per DoDAAC           | As Needed                       | Installation Name                                       |                                |
| 18                  | MAJCOM       | AN 10              | MEB 1 cc 65-74      | Yes      | 1 per DoDAAC           | As Needed                       | Major Command   |                                |
| 19                  | ECIP         | N 5                | Computed from MEB 7 | No       | 1 per DoDAAC per year  | Annually                        | Numeric, non-negative                                   |                                |
| 20                  | OM           | N 5                | Computed from MEB 7 | No       | 1 per DoDAAC per year  | Annually                        | Numeric, non-negative                                   |                                |

TABLE B-2 (continued)  
DEIS II STATIC DATA

| Data Element Number | Element Name | Format Type Length | Source                    | Required | Number of Occurrences | Frequency of Update/ Submission | Edit Criteria   | Description/Alias                   |
|---------------------|--------------|--------------------|---------------------------|----------|-----------------------|---------------------------------|---|-------------------------------------|
| 23                  | PROD         | AN 30              | DoD 4140.25M              | Yes      | 30                    | As Needed                       |   | Products                            |
| 24                  | PRODCODE     | AN 3               | DoD 4140.25M              | Yes      | 30                    | As Needed                       |   | Product Codes                       |
| 25                  | RECIPIENT    | AN 150             | DBA                       | Yes      | 40                    | As Needed                       |   | Addresses of Recipients of Reports  |
| 26                  | REGION       | AN 28              | Table 4-6                 | Yes      | 18                    | As Needed                       |   | Region/CINCP Name                   |
| 27                  | REGIONC      | AN 2               | Table 4-6, MEB 1 cc 19-20 | Yes      | 18                    | As Needed                       |   | Region/CINCP Code                   |
| 29                  | SERVICE      | A 20               | Table 4-7, MEB 1 cc 79    | Yes      | 9                     | As Needed                       |   | Service/Agency Name                 |
| 30                  | SERVICEC     | A 1                | Table 4-7                 | Yes      | 9                     | As Needed                       | A, G, F, V, N, M, D, S, or T                                      | Service/Agency Code                 |
| 32                  | STATE        | A 28               | Table 4-6                 | Yes      | 120                   | As Needed                       |   | State/Country                       |
| 33                  | STATEC       | AN 2               | Table 4-6, MEB 1 cc 22-23 | Yes      | 120                   | As Needed                       |   | State/Country Code                  |
| 34                  | SQFTIN       | N 5                | MEB 6 cc 59-63            | No       | 1 per DoDAAC per year | Annually                        | Numeric, non-negative within 3% of prior year or 10% of base year | Square Feet of New Leased Buildings |
| 35                  | SQFTLO       | N 5                | MEB 6 cc 37-41            | No       | 1 per DoDAAC per year | Annually                        | Same as above   | Square Feet of Old Leased Buildings |
| 36                  | SQFTON       | N 5                | MEB 6 cc 48-52            | No       | 1 per DoDAAC per year | Annually                        | Same as above   | Square Feet of New Owned Buildings  |
| 37                  | SQFTOO       | N 6                | MEB 6 cc 25-30            | Yes      | 1 per DoDAAC per year | Annually                        | Same as above   | Square Feet of Old Owned Buildings  |

APPENDIX C  
DEIS DATA COLLECTION CARD FORMATS

This appendix contains the card layouts for each of the input data cards as they are submitted by field activities for DEIS I and DEIS II. Tables C-1, C-2 and C-3 show the DEIS I input card layouts; and Tables C-4 through C-9 show the DEIS II input card layouts.

TABLE C-1  
DEIS I - MEA 2 CARD LAYOUT

| <u>Card Column</u> | <u>Data Description</u> | <u>Data Element Number</u> <sup>*</sup> |
|--------------------|-------------------------|---|
| 1-3                | Card Type (MEA)         |   |
| 4                  | Blank                   |   |
| 5                  | Card Number (2)         |   |
| 6                  | Blank                   |   |
| 7-12               | DoDAAC                  | 9                                       |
| 13                 | Blank                   |   |
| 14-15              | Reporting Date (Month)  | 29                                      |
| 16-17              | Reporting Date (Year)   | 29                                      |
| 18                 | Blank                   |   |
| 19-21              | Product Code            | 21                                      |
| 22                 | Blank                   |   |
| 23-29              | Opening Inventory       | 19                                      |
| 30                 | Blank                   |   |
| 31-37              | Total Issues            | 15                                      |
| 38                 | Blank                   |   |
| 39-45              | Commercial Receipts     | 4                                       |
| 46                 | Blank                   |   |
| 47-53              | Receipts from DoD       | 11                                      |
| 54                 | Blank                   |   |
| 55-61              | Closing Inventory       | 3                                       |
| 62-80              | Blank                   |   |

\*if applicable

TABLE C-2  
DEIS I - MEA 3 CARD LAYOUT

| <u>Card Column</u> | <u>Data Description</u> | <u>Data Element Number</u> <sup>*</sup> |
|--------------------|-------------------------|---|
| 1-3                | Card Type (MEA)         |   |
| 4                  | Blank                   |   |
| 5                  | Card Number (3)         |   |
| 6                  | Blank                   |   |
| 7-12               | DoDAAC                  | 9                                       |
| 13                 | Blank                   |   |
| 14-15              | Reporting Date (Month)  | 29                                      |
| 16-17              | Reporting Date (Year)   | 29                                      |
| 18                 | Blank                   |   |
| 19-21              | Product Code            | 21                                      |
| 22                 | Blank                   |   |
| 23-28              | Primary Use             | 22                                      |
| 29                 | Blank                   |   |
| 30-35              | Secondary Use           | 30                                      |
| 36                 | Blank                   |   |
| 37-42              | Tertiary Use            | 39                                      |
| 43                 | Blank                   |   |
| 44-49              | Downgrade/Loss          | 16                                      |
| 50                 | Blank                   |   |
| 51-56              | Aviation                | 1                                       |
| 57                 | Blank                   |   |
| 58-63              | Service Use 3           | 33                                      |
| 64-80              | Blank                   |   |

\*if applicable

TABLE C-3  
DEIS I - MEA 4 CARD LAYOUT

| <u>Card Column</u> | <u>Data Description</u> | <u>Data Element Number*</u> |
|--------------------|-------------------------|-----------------------------|
| 1-3                | Card Type (MEA)         |                             |
| 4                  | Blank                   |                             |
| 5                  | Card Number (4)         |                             |
| 6                  | Blank                   |                             |
| 7-12               | DoDAAC                  | 9                           |
| 13                 | Blank                   |                             |
| 14-15              | Reporting Date (Month)  | 29                          |
| 16-17              | Reporting Date (Year)   | 29                          |
| 18                 | Blank                   |                             |
| 19-21              | Product Code            | 21                          |
| 22                 | Blank                   |                             |
| 23-27              | Quantity 1              | 23                          |
| 28                 | Blank                   |                             |
| 29-33              | Quantity 2              | 24                          |
| 34                 | Blank                   |                             |
| 35-39              | Quantity 3              | 25                          |
| 40                 | Blank                   |                             |
| 41-45              | Quantity to Non-DoD     | 18                          |
| 46                 | Blank                   |                             |
| 47-51              | Intra Service Transfers | 13                          |
| 52                 | Blank                   |                             |
| 53-57              | Inter Service Transfers | 12                          |
| 58                 | Blank                   |                             |
| 59-63              | Service Use 4           | 34                          |
| 64-80              | Blank                   |                             |

\*if applicable

TABLE C-4  
DEIS II--MEB 1 CARD LAYOUT

| <u>Card Columns</u> | <u>Data Description</u> | <u>Data Element Number*</u> |
|---------------------|-------------------------|-----------------------------|
| 1- 3                | Card Type (MEB)         |                             |
| 4                   | Blank                   |                             |
| 5                   | Card Number (1)         |                             |
| 6-11                | Blank                   |                             |
| 12-17               | DoDAAC                  | 12                          |
| 18                  | Blank                   |                             |
| 19-20               | Region Code             | 27                          |
| 21                  | Blank                   |                             |
| 22-23               | State Code              | 33                          |
| 24                  | Blank                   |                             |
| 25-64               | Installation Name       | 16                          |
| 65-74               | Major Command           | 18                          |
| 75-78               | Blank                   |                             |
| 79                  | Service Code            | 30                          |
| 80                  | Action Code             |                             |

TABLE C-5

DEIS II - MEB 2 CARD LAYOUT

| <u>Card Column</u> | <u>Data Description</u> | <u>Data Element Number</u> <sup>*</sup> |
|--------------------|-------------------------|---|
| 1-3                | Card Type (MEB)         |   |
| 4                  | Blank                   |   |
| 5                  | Card Number (2)         |   |
| 6                  | Blank                   |   |
| 7-8                | Reporting Date (Month)  | 28                                      |
| 9-10               | Reporting Date (Year)   | 28                                      |
| 11                 | Blank                   |   |
| 12-17              | DoDAAC                  | 12                                      |
| 18                 | Blank                   |   |
| 19-21              | Product Code            | 24                                      |
| 22                 | Blank                   |   |
| 23-30              | Inventory               | 17                                      |
| 31-33              | Blank                   |   |
| 34-39              | Btu Content             | 5                                       |
| 40                 | Blank                   |   |
| 41-48              | Consumption             | 8                                       |
| 49                 | Blank                   |   |
| 50-51              | Variance Code           | 35                                      |
| 52                 | Blank                   |   |
| 53-60              | Funded Consumption      | 14                                      |
| 61                 | Blank                   |   |
| 62-69              | Component Use           | 34                                      |
| 70-80              | Blank                   |   |

\*if applicable

TABLE C-6

DEIS II - MEB 4 CARD LAYOUT

| <u>Card Columns</u> | <u>Data Description</u>           | <u>Data Element Number*</u> |
|---------------------|-----------------------------------|-----------------------------|
| 1-3                 | Card Type (MEB)                   |                             |
| 4                   | Blank                             |                             |
| 5                   | Card Number (4)                   |                             |
| 6                   | Blank                             |                             |
| 7-8                 | Reporting Date (Month)            | 28                          |
| 9-10                | Reporting Date (Year)             | 28                          |
| 11                  | Blank                             |                             |
| 12-17               | DoDAAC                            | 12                          |
| 18-22               | Blank                             |                             |
| 23-28               | Personnel Days in Quarters        | 22                          |
| 29                  | Blank                             |                             |
| 30-35               | Industrial Process Personnel Days | 21                          |
| 36                  | Blank                             |                             |
| 37-40               | Cooling Degree Days               | 7                           |
| 41                  | Blank                             |                             |
| 42-45               | Heating Degree Days               | 15                          |
| 46                  | Blank                             |                             |
| 47-52               | New Building Consumption          | 19                          |
| 53-80               | Blank                             |                             |

\*if applicable

TABLE C-7

DEIS II - MEB 5 CARD LAYOUT

| <u>Card Column</u> | <u>Data Description</u>      | <u>Data Element Number</u> <sup>*</sup> |
|--------------------|------------------------------|---|
| 1-3                | Card Type (MEB)              |   |
| 4                  | Blank                        |   |
| 5                  | Card Number (5)              |   |
| 6                  | Blank                        |   |
| 7-8                | Reporting Date (Month)       | 28                                      |
| 9-10               | Reporting Date (Year)        | 28                                      |
| 11                 | Blank                        |   |
| 11-17              | DoDAAC                       | 12                                      |
| 18-19              | Blank                        |   |
| 20                 | Card (1, 2, or 3)            |   |
| 21                 | Blank                        |   |
| 23-26              | Product 1 Uses <sup>**</sup> |   |
| 27                 | Blank                        |   |
| 28-31              | Product 2 Uses               |   |
| 32                 | Blank                        |   |
| 33-36              | Product 3 Uses               |   |
| 37                 | Blank                        |   |
| 38-41              | Product 4 Uses               |   |
| 42                 | Blank                        |   |
| 43-46              | Product 5 Uses               |   |
| 47                 | Blank                        |   |
| 48-51              | Product 6 Uses               |   |
| 52                 | Blank                        |   |

\*if applicable

\*\*Products 1-8 on each MEB 5 card are predefined (see Tables 5-10). The usage codes are single letter codes (up to 4 for each product).

TABLE C-7

DEIS II - MEB 5 CARD LAYOUT  
(Cont.)

| <u>Card Column</u> | <u>Data Description</u> | <u>Data Element Number</u> <sup>*</sup> |
|--------------------|-------------------------|---|
| 53-56              | Product 7 Uses          |   |
| 57                 | Blank                   |   |
| 58-61              | Product 8 Uses          |   |
| 62-80              | Blank                   |   |

TABLE C-8

DEIS II - MEB 6 CARD LAYOUT

| <u>Card Column</u> | <u>Data Description</u>                                | <u>Data Element Number*</u> |
|--------------------|--|-----------------------------|
| 1-3                | Card Type (MEB)  |                             |
| 4                  | Blank  |                             |
| 5                  | Card Number (6)  |                             |
| 6                  | Blank  |                             |
| 7-8                | Reporting Date (Month)                                 | 28                          |
| 9-10               | Reporting Date (Year)                                  | 28                          |
| 11                 | Blank  |                             |
| 12-17              | DoDAAC   | 12                          |
| 18                 | Blank  |                             |
| 19-23              | Number of Old Owned Buildings                          | 4                           |
| 24                 | Blank  |                             |
| 25-30              | Thousands of Feet of Old Owned Buildings               | 37                          |
| 31                 | Blank  |                             |
| 32-35              | Number of Old Leased Buildings                         | 2                           |
| 36                 | Blank  |                             |
| 37-41              | Thousands of Square Feet of Old Leased Buildings       | 35                          |
| 42                 | Blank  |                             |
| 43-46              | Number of New Owned Buildings                          | 3                           |
| 47                 | Blank  |                             |
| 48-52              | Thousands of Square Feet of New Owned Buildings (000)  | 36                          |
| 53                 | Blank  |                             |
| 54-57              | Number of New Leased Buildings                         | 1                           |
| 58                 | Blank  |                             |
| 59-63              | Thousands of Square Feet of New Leased Buildings (000) | 34                          |

\* If applicable.

TABLE C-9

DEIS II - MEB 7 CARD LAYOUT

| <u>Card Column</u> | <u>Data Description</u>                                   | <u>Data Element Number*</u> |
|--------------------|---|-----------------------------|
| 1-3                | Card Type (MEB)   |                             |
| 4                  | Blank   |                             |
| 5                  | Card Number (7)   |                             |
| 6                  | Blank   |                             |
| 7-8                | Reporting Date (Month)                                    |                             |
| 9-10               | Reporting Date (Year)                                     |                             |
| 11                 | Blank   |                             |
| 12-17              | DoDAAAC   |                             |
| 18                 | Blank   |                             |
| 19-23              | ECIP Spent Using Current Year Funds (\$000)               |                             |
| 24                 | Blank   |                             |
| 25-28              | ECIP Spent Using Prior Year Fund (\$000)                  |                             |
| 29                 | Blank   |                             |
| 30-33              | ECIP Spent Using Funds of 2 Years Ago (\$000)             |                             |
| 34                 | Blank   |                             |
| 35-38              | ECIP Using Funds of 3 Years Ago (\$000)                   |                             |
| 39                 | Blank   |                             |
| 40-43              | ECIP Using Funds of 4 Years Ago (\$000)                   |                             |
| 44                 | Blank   |                             |
| 45-49              | Current Year O&M Funds Expended (\$000)                   |                             |
| 50                 | Blank   |                             |
| 51-54              | Prior Year O&M Funds Expended during Current Year (\$000) |                             |
| 55-80              | Not Used  |                             |

\* If Applicable.

APPENDIX D

VALID VARIANCE CODES

Applicable to All Services

00, 01, 05-12, 15-17, 20-22, 25-27, 30-39

Special Coded

40-59      For Army Use Only

60-79      For Navy/Marine Corps Only

80-99      For Air Force Only

## APPENDIX E

| <u>INSTALLATION NAME</u>                    | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|---|------------------------|-------------------|
| SUBBASE NEW LONDON, GROTON, CT              | N00129, B00129, D00129 | 063207            |
| ORANGE ANG STATION CONNECTICUT<br>NEW HAVEN | FP6071                 | 065266            |
| SUBSCOL NEW LONDON, GROTON, CT              | N00750                 | 063207            |
| SUBMEDCTR NEW LONDON, GROTON, CT            | N61726                 | 063207            |
| NUSC NEW LONDON, GROTON, CT                 | N70024                 | 063207            |
| CONNECTICUT ARNG HARTFORD                   | W11M93                 | 063451            |
| NSGA WINTER HARBOR, ME                      | N00702, D00702         | 170371            |
| NAS BRUNSWICK, ME                           | N60087, 060087         | 170934            |
| NRS CUTLER, ME, EAST MACHIAS, ME            | D63038, N63038         | 174183            |
| LORING AFB, LIMESTONE, MAINE                | FB4678                 | 174625            |
| TRAFAC, BANGOR, MAINE                       | N68437                 | 170355            |
| MAINE ANG                                   | FP6181                 | 174183            |
| MAINE ARNG AUGUSTA                          | W12L3Z                 | 170275            |
| USA ENGINEER DISTRICT WALTHAM, MA           | A1322D                 | 190770            |
| NAS SO WEYMOUTH, BOSTON, MA                 | D00101, N00101         | 190770            |
| L G HANSCOM FIELD, BEDFORD, MA              | FP2835                 | 199923            |
| MA #1 ANG, WESTFIELD, MA                    | FP6201                 | 191430            |
| FORT DEVENS MA                              | W13GN5                 | 199923            |
| SUBASE BANGOR                               | D68436, N68436, P68436 | 170355            |
| OTIS AFB, FALMOUTH, MA                      | FP6202                 | 199923            |
| WESTOVER ARB MASS, CHICOPEE, MA             | FP6606                 | 191430            |
| MA #2 ANG, WELLESLEY, MA                    | FP6202                 | 192975            |
| NWIRP BEDFORD                               | N63880                 | 199923            |
| NIROP PITTSFIELD, MA                        | N91041                 | 198181            |

| <u>INSTALLATION NAME</u>                      | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|---|------------------------|-------------------|
| ARMY MATS/MECH RESEARCH CTR,<br>WATERTOWN, MA | W13BW5                 | 190770            |
| US ARMY R&D COMD NARADCOM,<br>NATICK, MA      | W13G07                 | 192975            |
| MASSACHUSETTS ARNG, NATIC                     | W13N92                 | 192975            |
| COLD REGION R AND D LAB, HANOVER, NH          | A14210                 | 274656            |
| NSY PORTSMOUTH, NH                            | N00102, D00102         | 276660            |
| PEASE AFB NH, HEWINGTON, NH                   | FP4623                 | 276660            |
| NH SATELLITE TRACKING STATION                 | FY8049                 | 271683            |
| USPFO CONCORD, NH                             | W14KUL                 | 271683            |
| NETC NEWPORT, RI                              | D62661, N62661, B62661 | 375215            |
| ANG, RI                                       | FP6391                 | 375215            |
| NAVAL WAR COLLEGE, NEWPORT, RI                | N00124                 | 375215            |
| CBC DAVISVILLE, RI                            | D62578, N62578         | 374266            |
| REDCOM NEWPORT                                | N68351                 | 375215            |
| NUSC ANDROS ISLAND                            | N63821                 | 375215            |
| NUSC NEWPORT, RI                              | N66604                 | 375215            |
| NRMC NEWPORT, RI                              | N68068                 | 375215            |
| RHODE ISLAND ARNG, PROVIDENCE                 | W17KZB                 | 376698            |
| MILITARY OCEAN TERMINAL, BAYONNE              | W15U97                 | 286026            |
| NEW JERSEY ANG                                | FG6303                 | 288883            |
| PICATINNY SENAL, DOVER                        | W15BW9                 | 072730            |
| VT ANG, SOUTH BURLINGTON, VT                  | FP6451                 | 431081            |
| VERMONT ARNG WINOOSKI                         | W18670                 | 431081            |
| NAD EARLE, NJ                                 | B60478, D60478, N60478 | 286026            |
| McGUIRE AFB ANG NEW JERSEY                    | FG6302                 | 285410            |
| McGUIRE AFB, WRIGHTSTOWN, NJ                  | FP4484                 | 285410            |

| <u>INSTALLATION NAME</u>            | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|-------------------------------------|----------------|-------------------|
| GIBBSBORO NJ AFS, GIBBSBORO, NJ     | FY7994         | 288883            |
| NAPTC TRENTON, NJ                   | N62376         | 288883            |
| NATTC LAKEHURST, NJ                 | N63094         | 288816            |
| NAEC LAKEHURST                      | D68335, N68335 | 288816            |
| FORT DIX                            | W15A9X         | 285410            |
| FT MONMOUTH NJ RED BANK             | W15HZS         | 286026            |
| NEW JERSEY ARNG TRENTON             | W15MCC         | 288883            |
| DIST ENGR NY, NY                    | W16ROE         | 305811            |
| USA ENGINEER DISTRICT BUFFALO, NY   | A16DMF         | 301012            |
| NSA BROOKLYN, NY                    | D61174, N61174 | 305811            |
| BROOKLYN MTMC                       | A16795         | 305811            |
| NIAGARA FALLS, NIAGARA FALLS, NY    | FP6670         | 305827            |
| PLATTSBURGH AFB, PLATTSBURGH, NY    | FP4615         | 306659            |
| GRIFFISS AFB, ROME NY               | FP4616         | 308383            |
| SCHENECTADY NY ANG, SCHENECTADY, NY | FG6321         | 300042            |
| HANCOCK FIELD, NY                   | FP6324         | 308383            |
| ROSLYN ANG NEW YORK, ROSLYN, NY     | FG6321         | 304207            |
| MONTAUK NY, AFS, MONTAUK, NY        | FY9756         | 300889            |
| HQ 1ST MC DIST GARDEN CITY          | M80001         | 305811            |
| NIRPO ROCHESTER, NY                 | N90691         | 307167            |
| NWIRP BETHPAGE, NY                  | N90845         | 307134            |
| NWIRP CALVERTON, NY                 | N96095         | 307134            |
| USMA WEST POINT & STEWART ANNEX, NY | W16BCT         | 309140            |
| SENECA ARMY DEPOT, ROMULUS NY       | W16G1A         | 308383            |
| WATERVLIET ARSENAL, WATERTOWN, NY   | W16H1F         | 309005            |
| NEW YORK ARNG, ALBANY               | W16L6S         | 300042            |

| <u>INSTALLATION NAME</u>                                | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|---|----------------|-------------------|
| NAVFAC LEWES, DE  | D57040, N57040 | 075320            |
| DOVER AFB DE, DOVER, DE                                 | FP4497         | 072730            |
| DELAWARE ANG, GREATER WILMINGTON ARPT,<br>NEWCASTLE, DE | FP6081         | 079595            |
| DELAWARE ARNG, WILMINGTON, DE                           | W21LRB         | 079595            |
| NRL WASHINGTON DC                                       | D00173, N00173 | 448906            |
| NAVAL OBSERVATORY WASHINGTON DC                         | D62285, N62285 | 448906            |
| BOLLING AFB, WASHINGTON, DC                             | FP4200         | 448906            |
| MARINE BARRACKS WASHINGTON DC                           | M54900, K54900 | 448906            |
| COM NDW WASHINGTON DC                                   | N00171, D00171 | 448906            |
| NAVRADTRANS FAC, ANNAPOLIS                              | D35328, N35328 | 180193            |
| SER CNO WASH DC   | N67597         | 448906            |
| REDCOM 6 WASHINGTON                                     | N68306, B68306 | 448906            |
| NPC WASHINGTON DC                                       | N62844         | 448906            |
| WESA WASHINGTON DC                                      | N62908         | 448906            |
| NAVSECSTA WASH DC                                       | D70092, N70092 | 448906            |
| DISTRICT OF COLUMBIA ARNG DC                            | W74LSD         | 448906            |
| NOS INDIAN HEAD, MD                                     | N00174, D00174 | 185080            |
| NAS PATUXENT RIVER, MD                                  | D00421, N00421 | 186915            |
| INDIANTOWN GAP MILITARY RES                             | W25DLJ         | 364896            |
| NCS WASH DC   | D00788         | 448906            |
| NAVSUPPAC THURMONT, MD                                  | D0417A, N0417A | 183975            |
| DC ARNG ANDREWS   | FG6511         | 448906            |
| ANDREWS AFB MD, CAMP SPRINGS, MD                        | FP4425         | 448906            |
| MARTIN AIRPORT ANG, BALTIMORE, MD                       | FP6191         | 180465            |
| USNA ANNAPOLIS, MD                                      | N00161, D00161 | 180193            |
| NH ANNAPOLIS, MD  | N00162         | 180193            |

| <u>INSTALLATION NAME</u>               | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|--|------------------------|-------------------|
| NSDC BETHESDA, MD                      | N00167                 | 187705            |
| NAT NAV MEDCEN BETHESDA                | D00168, N00168         | 187705            |
| FORT DETRICK, MD                       | W23GIL                 | 183975            |
| NCU WASH, DC                           | N00788                 | 448906            |
| NEODF INDIAN HEAD, MD                  | N0464A                 | 185080            |
| NSWC WHITE OAK, MD                     | N60921                 | 187705            |
| FORT MEADE, MD                         | W23BDJ                 | 187705            |
| NALC PAX RIVER                         | N68520                 | 186915            |
| NSRDC ANNAPOLIS, MD                    | N61533                 | 180193            |
| NSWCFLDBR SOLOMONS, MD                 | N62339                 | 188405            |
| NSEOD INDIAN HEAD, MD                  | N62640                 | 185080            |
| DODECAC                                | N63822                 | 448906            |
| NESTED PAX RIVER, MD                   | N65980                 | 186915            |
| NH PAX RIVER, MD                       | N66098                 | 186915            |
| NAVREC CTR SOLOMONS                    | N66843                 | 188405            |
| USA ENGINEER DISTRICT BALTIMORE, MD    | W23HAV                 | 180465            |
| ABERDEEN PROVING FROUND, MD            | W23HYY                 | 180015            |
| FT RITCHIE, CASCADE, MD                | W23P47                 | 181530            |
| MARYLAND ARNG, HAVRE DE GRACE          | W23R7B                 | 180015            |
| HARRY DIAMOND LAB DC                   | W71BFJ                 | 448906            |
| USA ENGINEER DISTRICT PHILADELPHIA, PA | A2519B                 | 366889            |
| USA ENGINEER DISTRICT PITTSBURGH, PA   | A2521D                 | 366993            |
| NSY PHILADELPHIA, PA                   | N00151, B00151, D00151 | 366889            |
| HARRISVILLE                            | UY7022                 | 363699            |
| PITTSBURGH ANG, CORAOPOLIS, PA         | FG6381                 | 366993            |
| WILLOW GROVE AIR RESERVE FACILITY, PA  | FP6637                 | 369750            |

| <u>INSTALLATION NAME</u>                    | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|---|----------------|-------------------|
| GREATER PITTSBURGH IAP, CORAOPOLIS, PA      | FP6712         | 366993            |
| MCSA PHILADELPHIA, PA                       | M38550         | 366889            |
| SPCC MECHANICSBURG, PA                      | N00104, D00104 | 361234            |
| REDCOM PHIL                                 | B68331, N68331 | 366889            |
| NAVAL HOME, GULFPORT, MS                    | N00153         | 223671            |
| NAS WILLOW GROVE, PA                        | N00158, D00158 | 369750            |
| COM 4 PHILADELPHIA, PA                      | N00175         | 366889            |
| ASO PHILADELPHIA, PA                        | D00383, N00383 | 366889            |
| NAVDISPBR PHILA, PA                         | N32626         | 366889            |
| NISMF PHILADELPHIA PA                       | N55632         | 366889            |
| NSA PHILADELPHIA PA                         | N61189         | 366889            |
| NADC WARMINSTER, PA                         | N62269, D62269 | 364385            |
| NDC PHILADELPHIA PA                         | N62842         | 366889            |
| NSEC PHILADELPHIA, PA                       | N65540         | 366889            |
| MB PHILADELPHIA, PA                         | N67231         | 366889            |
| NRMC PHILADELPHIA, PA                       | D68101, N68101 | 366889            |
| DPSC PHILADELPHIA                           | SBO100         | 366889            |
| FRANKFORD ARSENAL, PHILADELPHIA, PA         | W25GIN         | 366889            |
| LETTERKENNY ARMY DEPOT,<br>CHAMBERSBURG, PA | W25GIQ         | 361354            |
| NEW CUMBERLAND ARMY DEPOT, PA               | W25GIT         | 363699            |
| TOBYHANNA ARMY DEPOT, PA                    | W25GIV         | 368893            |
| SCRANTON AAP, PA                            | W25HOU         | 369705            |
| PENNSYLVANIA ARNG, ANNEVILLE                | W25KYQ         | 364896            |
| USA ENGINEER DISTRICT NORFOLK VA            | W26GLG         | 446139            |

| <u>INSTALLATION NAME</u>          | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|-----------------------------------|------------------------|-------------------|
| RADFORD AAP VA                    | W26HQQ                 | 446955            |
| HQ ARMY MIL DIST WASHINGTON DC    | A7370D                 | 448906            |
| VHFS WARRENTON VA                 | W73HYU                 | 448888            |
| NSY PORTSMOUTH, VA                | B00181, D00181, N00181 | 446139            |
| PWC NORFOLK, VA                   | B00187, D00187, N00187 | 446139            |
| NWS YORKTOWN                      | D00109, N00109         | 449151            |
| CAMP ELMORE, NORFOLK              | M67391                 | 446139            |
| NAVSECGRUACT NW VA                | D63891                 | 448906            |
| FORT BELVOIR                      | W26AAA                 | 448903            |
| FCDSTCL VA BEACH, VA              | N00281, D00281         | 446295            |
| PHIBASE L CREEK, NORFOLK, VA      | B61414, N61414, D61414 | 446139            |
| NRMC PORTSMOUTH, VA               | D66818                 | 446139            |
| LANGLEY AFB, HAMPTON, VA          | FP4800                 | 444720            |
| MCB QUANTICO, VA                  | K00264, M00264         | 447201            |
| HQBN HQMC ARLINGTON, VA           | M67353                 | 448903            |
| NSWC DAHLGREN, VA                 | N00178, D00178         | 443192            |
| ST JULIENS CREEK ANNEX PORTSMOUTH | N00182                 | 446139            |
| NAS NORFOLK, VA                   | N00188                 | 446139            |
| NSC NORFOLK, VA                   | N63393, N00189         | 446139            |
| NORFOLK, VA                       | N31188                 | 446139            |
| FICEURLANT NORFOLK, VA            | N0586A                 | 446139            |
| NSRDC PORTSMOUTH, VA              | N30018                 | 446139            |
| NISF PORTSMOUTH VA                | N55631                 | 446139            |
| OPSUPP NORFOLK, VA                | N57074                 | 446139            |
| LANTFAU NORFOLK, VA               | N57095                 | 446139            |
| NAS OCEANA, VIRGINIA BEACH, VA    | N60191, D60191         | 446295            |

| <u>INSTALLATION NAME</u>               | <u>DoDAAC</u> | <u>NCC NUMBER</u> |
|--|---------------|-------------------|
| NS NORFOLK, VA                         | N62688        | 446139            |
| AFSC NORFOLK, VA                       | N61720        | 446139            |
| FTC NORFOLK, VA                        | N61797        | 446139            |
| FORT EUSTIS                            | W26RK4        | 446139            |
| NS NORFOLK, VA                         | N63061        | 446139            |
| FAAOCLANT                              | N60951        | 446139            |
| FLTCOMBDIRSYS VA BEACH, VA             | N63273        | 446295            |
| FAWTS NORFOLK, VA                      | N63401        | 446139            |
| GMSCOL VA BEACH, VA                    | N64619        | 446295            |
| NARF NORFOLK, VA                       | N65887        | 446139            |
| MB NORFOLK, VA                         | N67230        | 446139            |
| VA ANG                                 | FP6461        | 447201            |
| DGSC RICHMOND                          | SB0400        | 447201            |
| VIRGINIA ARNG RICHMOND                 | W26L8F        | 447201            |
| ARLINGTON HALL STATION VA              | W73G3L        | 448903            |
| USA ENGINEER DISTRICT HUNTINGTON, W VA | A2706B        | 464393            |
| WEST VA ANG CHARLESTON, W VA           | FP6481        | 461570            |
| ALLEGANY BALLISTICS LAB                | N91571        | 469522            |
| WEST VIRGINIA ARNG, BUCKHANNAN         | W27L8R        | 461220            |
| USA ENGINEER DISTRICT MOBILE, AL       | A35BRB        | 015478            |
| MAXWELL AFB, MONTGOMERY AL             | FP3069        | 015550            |
| GADSDEN ANG ALA                        | FP6011        | 013154            |
| HALL ANG STAT DOTHAN AL                | FP6012        | 015550            |
| NAVSPASUR JORDAN LAKE, MONTGOMERY, AL  | N66085        | 015550            |
| ANNISTON ARMY DEPOT, AL                | W31GIY        | 010272            |

| <u>INSTALLATION NAME</u>                  | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|---|------------------------|-------------------|
| REDSTONE ARSENAL, HUNTSVILLE, AL          | W31G3G                 | 014064            |
| ALABAMA ARNG MONTGOMERY                   | W31LPY                 | 015550            |
| USA ENGINEER DISTRICT<br>JACKSONVILLE, FL | A32040                 | 084358            |
| PWC PENSACOLA, FL                         | B00204, D65114, N65114 | 086997            |
| NS MAYPORT, JACKSONVILLE FL               | B60201, D60201, N60201 | 084358            |
| NAS JACKSONVILLE, FL                      | N00207, D00207         | 084358            |
| NAS KEY WEST, FL                          | N00213, D00213         | 084570            |
| NAS CECIL FIELD, JACKSONVILLE, FL         | D60200, N60200         | 084358            |
| NAS WHITING FLD, MILTON, FL               | N60508, D60508         | 085793            |
| NCSL PANAMA CITY, FL                      | D61331, N61331         | 086842            |
| NTC ORLANDO, FL                           | D65928, N65928         | 086628            |
| AFETR AAFB CAPE CANAVERAL FL              | EY815F                 | 085612            |
| TYNDALL AFB, SPRINGFIELD, FL              | FP2586                 | 082660            |
| EGLIN AFB, VALPARISO, FL                  | FP2823                 | 082660            |
| PATRICK AFB, COCOA BEACH, FL              | FP2829                 | 086628            |
| EGLIN AF AUX FLD                          | FP4808                 | 082660            |
| MACDILL AFB TAMPA, FL                     | FP4814                 | 088788            |
| HOMESTEAD AFB FL                          | FP4829                 | 084091            |
| REDCOM JAX                                | N68358                 | 084091            |
| NARMC PENSACOLA, FL                       | N00203                 | 086997            |
| NAS PENSACOLA, FL                         | N00204                 | 086997            |
| FLORIDA ANG                               | FP6091                 | 082660            |
| NSGA HOMESTEAD                            | N62892                 | 084091            |
| NAVRAD TRAN FAC KEYS, FLA                 | N39142                 | 084570            |
| NH KEY WEST, FL                           | N00267                 | 084570            |

| <u>INSTALLATION NAME</u>                 | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|--|----------------|-------------------|
| NTEC ORLANDO, FL                         | N61339         | 086628            |
| NFD JACKSONVILLE, FL                     | N62566         | 084358            |
| NSWCFLDBR FT LAUDERDALE, FL              | N62701         | 083163            |
| NTTC PENSACOLA, FL                       | N63082         | 086997            |
| NARU JACKSONVILLE, FL                    | N63099         | 084358            |
| NCS KEYWEST, FL                          | N63425         | 084570            |
| NRMC ORLANDO, FL                         | N65492         | 086628            |
| NARF JACKSONVILLE, FL                    | N65886         | 084358            |
| NARF PENSACOLA, FL                       | N65889         | 086997            |
| NRMC JACKSONVILLE, FL                    | N68085         | 084358            |
| NETPDC ELLYSON FIELD<br>JACKSONVILLE, FL | N68322         | 084358            |
| NRDC PENSACOLA, FL                       | N68441         | 086997            |
| FLORIDA ARNG ST AUGUSTINE                | W32MUV         | 087826            |
| USA ENGINEER DISTRICT SAVANNAH, GA       | A33280         | 097847            |
| NAS ATLANTA, GA                          | D00196, N00196 | 090451            |
| DOBBINS GA AFB, MARIETTA, GA             | FP6703         | 097847            |
| FORT GORDON                              | W33M8Q         | 381939            |
| FORT BENNING                             | W33BQ9         | 097535            |
| ROBINS AFB GA, WARNER ROBINS, GA         | FP2065         | 097535            |
| MOODY AFB GA, VALDOSTA, GA               | FP4830         | 098972            |
| WILSON ARPT MACON GA ANG, MACON, GA      | FP6102         | 095443            |
| MCSC ALBANY, GA                          | K67004, M67004 | 090140            |
| OCASR ATLANTA                            | S1102A         | 090451            |
| NSCS ATHENS, GA                          | D62741, N62741 | 090435            |
| NAVSPASUR HAWKINSVILLE, GA               | N66086         | 094170            |

| <u>INSTALLATION NAME</u>                            | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|---|----------------|-------------------|
| NAVSPASUR FT STEWART, GA;<br>SAVANNAH, GA           | N66087         | 093538            |
| GEORGIA ARNG ATLANTA                                | W33QW7         | 090451            |
| SHEWMAKER ANG BASE LOUISVILLE, KY                   | FP6161         | 154954            |
| NOS LOUISVILLE, KY                                  | D00197, N00197 | 154954            |
| LEXINGTON BLUE GRASS ARMY DEPOT, KY                 | W22GIF         | 154746            |
| KENTUCKY ARNG FRANKFORT                             | W22QW6         | 153028            |
| USAE WATERWAYS EXPERIMENT STATION,<br>VICKSBURG, MS | A35200         | 229216            |
| USA ENGINEER DISTRICT, VICKSBURG, MS                | A35300         | 229216            |
| CBC GULFPORT, MS                                    | N62604, D62604 | 223671            |
| NAS MERIDIAN, MS                                    | D63043, N63043 | 225776            |
| KEESLER AFT, BILOXI, MS                             | FB3010         | 220792            |
| COLUMBUS AFB, COLUMBUS, MS                          | FP3022         | 221870            |
| KEY FIELD ANG, MERIDIAN, MS                         | FP6241         | 225776            |
| DIST ENGR LOUISVILLE, KY                            | A2220D         | 154954            |
| FORT CAMPBELL                                       | W34GM7         | 406402            |
| SUPSHIP PASCAGOULA, MS                              | N62795         | 224472            |
| NAVSPASUR SILVER LAKE,<br>GREENVILLE, MS            | N66084         | 223605            |
| MISSISSIPPI ARNG JACKSON                            | W35KT5         | 224472            |
| USA ENGINEER DISTRICT WILMINGTON NC                 | A36380         | 311730            |
| NAVFAC CAPE HATTERAS NC                             | D57041, N57041 | 311458            |
| SEYMORE JOHNSON AFB, GOLDSBORO, NC                  | FP4809         | 313510            |
| POPE AFB NC, SPRINGLAKE, NC                         | FP4488         | 316891            |
| DOUGLAS AIRPORT ANG, CHARLOTTE, NC                  | FP6331         | 311690            |
| MCAS CHERRY POINT, NC                               | K00146, M00146 | 311730            |

| <u>INSTALLATION NAME</u>            | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|-------------------------------------|------------------------|-------------------|
| MCB CAMP LEJUENE, CHERRY POINT, NC  | K67001, M6709          | 311730            |
| NARF CHERRY POINT, NC               | N65923                 | 311730            |
| NRMC CAMP LEJUENE, CHERRY POINT, NC | N68093                 | 311730            |
| NORTH CAROLINA ARNG RALEIGH         | W36HUG                 | 317069            |
| NSY CHARLESTON, SC                  | B00191, N00191         | 381544            |
| NWS CHARLESTON, SC                  | B00193, D00193, N00193 | 381544            |
| CHARLESTON, SC                      | UY7011                 | 381544            |
| CHARLESTON AFS, SC                  | FP4418                 | 381544            |
| NS CHARLESTON, SC                   | D61165, N61165         | 381544            |
| NH BEAUFORT, SC                     | D61337, N61337         | 380559            |
| CHARLESTON AFB, CHARLESTON, SC      | FP4418                 | 381544            |
| SHAW AFB, SUMTER, SC                | FP4803                 | 388440            |
| MYRTLE BEACH AFB SC                 | FP4806                 | 386159            |
| SC ANG                              | FP6041                 | 385665            |
| N CHARLESTON SC AFB                 | FY8977                 | 381544            |
| MCRD PARRIS ISLAND, BEAUFORT, SC    | M00263, K00263         | 380559            |
| MCAS BEAUFORT, SC                   | K60169, M60169         | 380559            |
| NSC CHARLESTON, SC                  | N00612                 | 381544            |
| SUBGRP SIX CHARLESTON, SC           | N55424                 | 381544            |
| COMINEWARCOM CHARLESTON, SC         | N57011                 | 381544            |
| DIST ENG CHARLESTON                 | A37230                 | 381544            |
| FMWTC CHARLESTON, SC                | N62603                 | 381544            |
| PMF CHARLESTON, SC                  | N63028                 | 381544            |
| NRMC CHARLESTON, SC                 | N68084                 | 381544            |
| SOUTH CAROLINA ARNG, COLUMBIA       | W37JTM                 | 381939            |
| MILAN AAP, TN                       | W38HON                 | 406012            |

| <u>INSTALLATION NAME</u>                          | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|---|----------------|-------------------|
| HOLSTON AAP, KINGSPORT, TN                        | W38HOE         | 404858            |
| VOLUNTEER AAP, CHATTANOOGA, TN                    | W38HOY         | 401656            |
| USA ENGINEER DISTRICT MEMPHIS, TN                 | A38950         | 405954            |
| ARNOLD AFS, MANCHESTER, TN                        | EY7483         | 408246            |
| DIST ENGR NASHVILLE                               | W38XDD         | 406402            |
| TENN ANG  | FP6421         | 406402            |
| USARMC AND FT KNOX                                | W22PEQ         | 154954            |
| RED COM MEMPHIS                                   | N68348         | 405954            |
| NAS MEMPHIS, TN                                   | D00639, N00639 | 405954            |
| NRMC MEMPHIS, TN                                  | N60002         | 405954            |
| NARU MEMPHIS, TN                                  | N63101         | 405954            |
| DD MEMPHIS  | SB3500         | 405954            |
| TENNESSEE ARNG NASHVILLE                          | W38NCE         | 406402            |
| USA ENGINEER DISTRICT CHICAGO, IL                 | A5212B         | 111577            |
| JOLIET AAP, IL                                    | W52ACD         | 114530            |
| ROCK ISLAND ARSENAL, IL                           | W52HIB         | 115751            |
| CERL CHAMPAIGN, IL                                | W52EU2         | 112140            |
| O'HARE IAP CHICAGO ANG ILLINOIS<br>PARK RIDGE, IL | FP6618         | 111549            |
| CHANUTE AFG - RANTOUL, IL                         | FP3018         | 112140            |
| SCOTT AFB - SHILOH, IL                            | FP4407         | 114530            |
| ILLINOIS ANG                                      | FP6122         | 111549            |
| NTC GREAT LAKES, IL                               | N00210         | 119029            |
| NAS GLENVIEW, IL                                  | D00275, N00275 | 113496            |
| REDCOM GREAT LAKES, IL                            | N60956         | 119029            |
| RESUPPL HQ 9ND, GREAT LAKES, IL                   | D68330, N68330 | 119024            |
| PWC GREAT LAKES, IL                               | D65113, N65113 | 119029            |

| <u>INSTALLATION NAME</u>                               | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|--|----------------|-------------------|
| NRMC GREAT LAKES, IL                                   | N68092         | 119029            |
| NRDC GREAT LAKES                                       | N68326         | 119029            |
| SAVANNAH ARMY DEPOT, GA                                | W52G2J         | 090451            |
| LITTLE ROCK DIST ENGR                                  | A5259B         | 034248            |
| FORT SHERIDAN  | W52CDE         | 119029            |
| ILLINOIS ARNG - SPRINGFIELD                            | W52JUD         | 118179            |
| NEWPORT AAP  | W53HOP         | 127522            |
| NWSC CRANE, IN   | D00164, N00164 | 121869            |
| GRISSOM AFB, BUNKER HILL, IND                          | FP4654         | 123580            |
| INDIANA ANG  | FP6131         | 123037            |
| NAF INDIANAPOLIS, IN                                   | N00163         | 124259            |
| USARMY JEFFERSON PROVING GROUNDS,<br>MADISON, IN       | W53HZB         | 125237            |
| INDIANA AAP - CHARLESTON                               | W53HOF         | 121425            |
| INDIANA ARNG - INDIANAPOLIS                            | W53PIL         | 124259            |
| PONTIAC STORAGE FAC                                    | A56AXB         | 206658            |
| USA ENGINEER DISTRICT DETROIT, MI                      | A56LGS         | 202103            |
| DETROIT ARSENAL FH                                     | W56HZX         | 202103            |
| KI SAWYER AFB, GWINN, MI                               | FB4515         | 204415            |
| WURTSMITH AFB MICHIGAN - OSCODA, MI                    | FP4585         | 209110            |
| MICHIGAN #1 ANG - MT CLEMENS, MI                       | FP6221         | 205650            |
| MICHIGAN #2 ANG - ALPENA, MI                           | FP6222         | 200164            |
| MICHIGAN ARNG LANSING                                  | W56LS9         | 204641            |
| TWIN CITIES AAP - NEW BRIGHTON, MN                     | W57HOX         | 215435            |
| MINNEAPOLIS-ST PAUL ANG MINNESOTA -<br>MINNEAPOLIS, MN | FG6231         | 215435            |
| MINNEAPOLIS STPL AP                                    | FP6633         | 215435            |

| <u>INSTALLATION NAME</u>              | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|---------------------------------------|----------------|-------------------|
| DULUTH AIRPORT MN                     | FP2554         | 212248            |
| DIST ENGR ST PAUL                     | A5720B         | 215435            |
| MICHIGAN ARMY MISSILE PLANT           | A5619B         | 202103            |
| REDCOM MINN                           | D68349, N68349 | 215435            |
| NIRP ST PAUL                          | N91741         | 215435            |
| BAUDETTE AFS MN, BAUDETTE, MN         | FY8960         | 210515            |
| FINLAND AFS MN, FINLAND, MN           | FY9779         | 218419            |
| NIROP MINNEAPOLIS, MN                 | N91192         | 215435            |
| MINNESOTA ARNG - LITTLE FALLS         | W57LVB         | 214793            |
| RAVENNA AAP OH                        | W24HOR         | 333780            |
| NEWARK AFS, HEATH, OHIO               | FP2006         | 335747            |
| WRIGHT-PATTERSON AFB, FAIRBORN, OHIO  | FP2300         | 332075            |
| RICKENBACKER AFB OH, LOCKBOURNE, OHIO | FP4601         | 331783            |
| OHIO #2 ANG OHIO                      | FG6354         | 334865            |
| CINCINNATI                            | UY7019         | 332067            |
| OHIO #1 ANG OHIO                      | FP6352         | 331786            |
| YOUNGSTOWN AIRPORT, VIENNA, OHIO      | FP6656         | 339406            |
| NAVPRO COLUMBUS, OH                   | N62940         | 331786            |
| DCSC COLUMBUS                         | SB0700         | 331786            |
| DESC DAYTON                           | SB0900         | 332067            |
| LIMA ARMY MODIFICATION CTR OH         | W24HZ0         | 334551            |
| OHIO ARNG - COLUMBUS                  | W24L9M         | 331786            |
| GEN MITCHELL ANG, MILWAUKEE, WI       | FP6605         | 475479            |
| WISCONSIN ANG, CAMP DOUGLAS, WI       | FP6492         | 475178            |
| CAMP McCOY, WI                        | W5CD3D         | 470516            |
| ANTIGO AFS WI                         | FY9735         | 470239            |
| BADGER AAP - BARABOO, WI              | W5CHZ8         | 470516            |
| WISCONSIN ARNG CAMP DOUGLAS           | W5CRZU         | 475178            |
| USA ENGINEER DISTRICT LITTLE ROCK, AR | A41XDE         | 034248            |

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| <u>INSTALLATION NAME</u>                               | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|--|------------------------|-------------------|
| NRMC N. ORLEANS  | N66898                 | 166660            |
| NRPC N. ORLEANS  | N68327                 | 166660            |
| LITTLE ROCK ANG  | FB6031                 | 034248            |
| BLYTHEVILLE AFB AR, BLYTHEVILLE, AR                    | FP4634                 | 033734            |
| LITTLE ROCK AFB AR, JACKSONVILLE, AR                   | FP4460                 | 034248            |
| NAVSPASUR RED RIVER, TEXARKANA, AR                     | N66083                 | 037048            |
| PINE BLUFF ARSENAL, AR                                 | W41G26                 | 035754            |
| ARKANSAS ARNG LITTLE ROCK                              | W41RAM                 | 034248            |
| LOUISIANA AAP SHREVEPORT                               | W42HOM                 | 168440            |
| USA ENGINEER DISTRICT NEW ORLEANS, LA                  | W42HEM                 | 166660            |
| NAS NEW ORLEANS, LA                                    | D00206, N00206         | 166660            |
| BARKSDALE AFB LA, BOSSIER CITY, LA                     | FP4608                 | 160515            |
| ENGLAND AFB, ALEXANDRIA, LA                            | FP4805                 | 160098            |
| JACKSON BARRACKS ANG COMM STAT, LA                     | FY8228                 | 164034            |
| FOURTH MAWMARCTC NEW ORLEANS, LA                       | M67021                 | 166660            |
| NSA NEW ORLEANS, LA                                    | B00205, D00205, N00205 | 166660            |
| NARDAC, NEW ORLEANS                                    | N68608                 | 166660            |
| REDCOM NEW ORLEANS, LA                                 | N68307                 | 166660            |
| EPMAC NEW ORLEANS, LA                                  | N68412                 | 166660            |
| LOUISIANA ARNG NEW ORLEANS                             | W42N6L                 | 166660            |
| USA ENGINEER DISTRICT ALBUQUERQUE, NM                  | A43300                 | 290234            |
| KIRTLAND AFB, ALBUQUERQUE, NM                          | FP4469                 | 290234            |
| HOLLOMAN AFB, ALAMAGORDO, NM                           | FP4801                 | 290199            |
| CANNON AFB, CLOVIS, NM                                 | FP4855                 | 291939            |
| NAVSPASUR ELEPHANT BUTTE,<br>TRUTH OR CONSEQUENCES, NM | N66081                 | 299129            |
| FORT SILL, OK  | W44DQ1                 | 340184            |

| <u>INSTALLATION NAME</u>            | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|-------------------------------------|----------------|-------------------|
| WHITE SANDS MISSILE RANGE, NM       | W43HZD         | 299686            |
| FT WINGATE DEP ACT GALLUP, NM       | W43MNO         | 293422            |
| NEW MEXICO ARNG SANTE FE            | W43MYP         | 293031            |
| USA ENGINEER DISTRICT TULSA, OK     | W44XGQ         | 348992            |
| TINKER AFB, MIDWEST CITY, OK        | FP2039         | 346661            |
| VANCE AFB OKLA, ENID, OK            | FP3029         | 342912            |
| ALTUS AFB OK, ALTUS, OK             | FP4419         | 340184            |
| OKLAHOMA ANG                        | FG6563         | 346661            |
| McALESTER AAP                       | W44W9M         | 345664            |
| OKLAHOMA ARNG, OKLAHOMA CITY        | W44AAY         | 346661            |
| LONE STAR AAP, TEXARKANA, TX        | W45HOK         | 418942            |
| USA ENGINEER DISTRICT FT WORTH, TX  | W45XMA         | 412242            |
| USA ENGINEER DISTRICT GALVESTON, TX | A45280         | 413430            |
| NAS DALLAS, TX                      | D00215, N00215 | 412244            |
| NAS CORPUS CHRISTI, TX              | D00216, N00216 | 412015            |
| NAS KINGSVILLE, TX                  | D60241, N60241 | 414810            |
| NAS CHASE FLD, BEEVILLE, TX         | D60373, N60376 | 410639            |
| LACKLAND AFB TEX, SAN ANTONIO, TX   | FB3047         | 417945            |
| BROOKS AFB TX, SAN ANTONIO, TX      | FG2857         | 417945            |
| KELLY AFB, SAN ANTONIO, TX          | FP2059         | 414735            |
| SHEPPARD AFB, WICHITA FALLS, TX     | FP3020         | 419729            |
| REESE AFB, LUBBOCK, TX              | FP3060         | 415411            |
| RANDOLPH AFB UNIVERSAL CITY, TX     | FP3089         | 417423            |
| LAUGHLIN AFB, DEL RIO, TX           | FP3099         | 412360            |
| DYESS AFB TX, ABILENE, TX           | FP4661         | 410016            |
| CORPUS CHRISTI, ARMY DEPOT          | W45N7V         | 412015            |
| FORT SAM HOUSTON                    | W45B95         | 414307            |

| <u>INSTALLATION NAME</u>         | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|----------------------------------|----------------|-------------------|
| CARSWELL AFB FORT WORTH, TX      | FP4689         | 411495            |
| BERGSTROM AFB TX AUSTIN, TX      | FP4857         | 410428            |
| TEXAS ANG #1                     | FP6431         | 410235            |
| GOODFELLOW AFB, SAN ANGELO, TX   | FP3030         | 417943            |
| TEXAS #2 ANG                     | FP6433         | 412244            |
| REDCOM DALLAS                    | N68359         | 412244            |
| NRMC CORPUS CHRISTI TEXAS        | N00285         | 412015            |
| CAMP STANLEY, TX                 | W45PVN         | 410235            |
| KICKAPOO LAKE, WICHITA FALLS, TX | N66082         | 419729            |
| NWIRP DALLAS, TX                 | N91961         | 412244            |
| RED RIVER ARMY DEPOT, TEXARKANA  | W45G18         | 418942            |
| LONG HORN AAP MARSHALL TX        | W45HOL         | 415618            |
| TEXAS ARNG AUSTIN, TX            | W45KOH         | 410428            |
| IOWA AAP MIDDLETOWN, IOWA        | W54HOG         | 132203            |
| IOWA ANG                         | FP6141         | 132203            |
| IOWA ARNG DES MOINES             | W54CJX         | 132203            |
| KANSAS AAP PARSONS               | W55HOH         | 146242            |
| SUNFLOWER AAP LAURENCE           | W55HOW         | 144559            |
| MCCONNELL AFB, WICHITA, KANSAS   | FP4621         | 148830            |
| KANSAS ANG                       | FP6152         | 148830            |
| REDCOM, OLATHE                   | N68332         | 145972            |
| FORT LEONARD WOOD, MO            | W58NQ5         | 234271            |
| FORT LEAVENWORTH                 | W55NSO         | 144588            |
| MARFINCEN KC, MD                 | M67443, K67443 | 234358            |
| NARDET OLATHE, KN                | N30924         | 145972            |
| DIPEC FACILITY ATCHISON          | SP4303         | 140405            |

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|--|---------------|-------------------|
| KANSAS ARNG TOPEKA                             | W55RHF        | 148167            |
| USA ENGINEER DISTRICT KANSAS CITY              | A5823B        | 234358            |
| USA ENGINEER DISTRICT ST LOUIS MO              | A5826B        | 237455            |
| RICHARDS-GEBAUR AFB, MO                        | FP4416        | 237100            |
| WHITEMAN AFB MO, KNOB NOSTER, MO               | FP4625        | 238920            |
| ROSECRANS FIELD ANG, ELWOOD, MO                | FP6251        | 237455            |
| MISSOURI ARNG JEFFERSON CITY,<br>ST LOUIS, MO  | W58MYQ        | 234271            |
| USA ENGINEER DISTRICT OMAHA, NB                | A5920B        | 256255            |
| OFFUTT AFB, BELLEVUE, NB                       | FP4600        | 256255            |
| NEBRASKA ANG                                   | FP6271        | 256255            |
| LAKE CITY AAP INDEP MO                         | W58HOJ        | 234850            |
| NEBRASKA ARNG                                  | W59LWG        | 256255            |
| CORNHUSKER, AAP                                | W59HOB        | 253395            |
| ENT AFB, COLORADO SPRINGS, COLORADO            | FB2500        | 051778            |
| LOWRY AFB DENVER, COLORADO                     | FB3059        | 052220            |
| USAF ACADEMY, MONUMENT, COLORADO               | FB7000        | 053592            |
| BUCKLEY ANG BASE COLORADO,<br>AURORA, COLORADO | FP6061        | 050395            |
| PUEBLO DEPOT ACTIVITY COLORADO                 | W51G2B        | 056740            |
| ROCKY MOUNTAIN ARSENAL                         | W51G2F        | 052220            |
| COLORADO ARNG                                  | W51HVG        | 052220            |
| ST LOUIS AREA SUPPORT CENTER                   | W52HO1        | 234271            |
| MALMSTROM AFB MONTANA, GREAT FALLS,<br>MONTANA | FP4626        | 243751            |
| GREAT FALLS ANG MONTANA                        | FP6261        | 243751            |

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|--|---------------|-------------------|
| GRAND FORKS, ND                                | UY7021        | 323616            |
| MONTANA ARNG, HELENA, MONTANA                  | W64PTP        | 244055            |
| GRAND FORKS AFB, EMERADO, NORTH DAKOTA         | FB4659        | 323616            |
| MINOT AFB NORTH DAKOTA, MINOT,<br>NORTH DAKOTA | FP4528        | 325988            |
| HECTOR AIRPORT ANG, FARGO, NORTH DAKOTA        | FP6341        | 322859            |
| NORTH DAKOTA ARNG, BISMARCK                    | W5ALXU        | 320819            |
| ELLSWORTH AFB, ELDER, SOUTH DAKOTA             | FP4690        | 396937            |
| SOUTH DAKOTA ANG, SIOUX FALLS                  | FP6411        | 397667            |
| SOUTH DAKOTA ARNG                              | W5BM2T        | 396937            |
| HILL AFB, OGDEN, UTAH                          | FP2027        | 426404            |
| UTAH ANG                                       | FP6441        | 426404            |
| SSPO MAGNA UTAH                                | N63319        | 427598            |
| DD OGDEN                                       | SB3400        | 426404            |
| TOOLE ARMY DEPOT, UTAH                         | W67G22        | 428771            |
| DUGWAY PROVING GROUNDS, UTAH                   | W67HY8        | 422257            |
| UTAH ARNG, OGDEN                               | W67K2Q        | 426404            |
| FE WARREN AFB, CHEYENNE, WYOMING               | FP4613        | 481675            |
| WYOMING ANG                                    | FP6501        | 481675            |
| WYOMING ARNG, CHEYENNE                         | W5DK51        | 481675            |
| WILLIAMS AFB, CHANDLER, ARIZONA                | FP3044        | 021511            |
| DAVIS-MONTHAN AFB, TUCSON, ARIZONA             | FP4877        | 028820            |
| LUKE AFB, LITCHFIELD PARK, ARIZONA             | FP4887        | 026486            |
| PHOENIX ANG, PHOENIX, ARIZONA                  | FP6021        | 026481            |
| MCAS YUMA, ARIZONA                             | K2974, M62974 | 029654            |

| <u>INSTALLATION NAME</u>               | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|--|------------------------|-------------------|
| NAVSPASUR GILA RIVER, PHOENIX, ARIZONA | N66080                 | 023393            |
| FT HAUCHUCA FAE                        | W61DEB                 | 023120            |
| USA YUMA PROVING GROUNDS, ARIZONA      | W61HZF                 | 029654            |
| ARIZONA ARNG PHOENIX                   | WP1LP3                 | 026481            |
| NAVAJO DEPOT ACTIVITY FLAGSTAFF        | W61MN1                 | 023010            |
| RIVERBANK AAP, RIVERBANK, CA           | W62HOT                 | 045738            |
| USA ENGINEER DISTRICT LOS ANGELES      | A62222                 | 045114            |
| USA ENGINEER DISTRICT SAN FRANCISCO    | A62252                 | 047769            |
| NSY MARE ISLAND, CA                    | P00221, D00221, N00221 | 047414            |
| NSC OAKLAND, CA                        | P00228, D00228         | 046335            |
| NAS ALAMEDA, CA                        | N00236, D00236, P00236 | 040061            |
| NAS NORTH ISLAND, SAN DIEGO, CA        | N00246                 | 047740            |
| NAS MOFFETT FLD, CA                    | N00296, D00296         | 045748            |
| NCS STOCKTON, CA                       | N00886, D00886         | 048558            |
| NAVFAC CENTERVILLE BEACH, CA           | D57053, N57053         | 048045            |
| NAVFAC POINT SUR, CA                   | D57054, N57053         | 045795            |
| NS TREASURE ISLAND, SAN FRANCISCO, CA  | P60028, D60028         | 040061            |
| NWS CONCORD, CA                        | N60036, D60036         | 045378            |
| NAS MIRAMAR, SAN DIEGO, CA             | D60259, N60259         | 047740            |
| MCRD SAN DIEGO                         | K00243, M00243         | 047740            |
| NAS LEMOORE, CA                        | N63042, D63042         | 044900            |
| PMTC PT MUGU, OXNARD, CA               | N63126, D63126         | 047022            |
| ANDERSON PEAK                          | EY1525                 | 047292            |
| LOS ANGELES AFSC                       | EY7396                 | 045114            |
| PILLAR POINT AFS                       | EY7765                 | 043714            |
| SANTA YNEZ PEAK, CA                    | EY9887                 | 041253            |
| VANDENBERG AFB, LOMPOC, CA             | FB4610                 | 045064            |

| <u>INSTALLATION NAME</u>             | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|--------------------------------------|----------------|-------------------|
| McCLELLAN AFB CA, SACRAMENTO, CA     | FP2049         | 047630            |
| EDWARDS AFB, ROSAMOND, CA            | FP2805         | 044749            |
| MATHER AFB CALIF, RANCHO CORDOVA, CA | FP3067         | 047630            |
| TRAVIS AFB, FAIRFIELD, CA            | FP4427         | 047630            |
| NORTON AFB, SAN BERNARDINO, CA       | FP4448         | 047723            |
| MARCH AFB, SUNNYMEAD, CA             | FP4664         | 047470            |
| CASTLE AFB, ATWATER, CA              | FP4672         | 045532            |
| BEALE AFB, MARYSVILLE, CA            | FP4686         | 045385            |
| GEORGE AFB, ADELANTO, CA             | FP4812         | 049325            |
| CALIFORNIA ANG                       | FP6044         | 044997            |
| SUNNYVALE AFS, SUNNYVALE, CA         | FY7895         | 045748            |
| ALMADEN CA AFS, TWIN CREEK, CA       | FY8985         | 040061            |
| POINT ARENA CA AFS, ANCHOR BAY, CA   | FY9749         | 047009            |
| MCB CAMP PENDLETON, OCEANSIDE, CA    | K00681, M00681 | 046377            |
| MCSC BARSTOW, CA                     | K62204, M62204 | 040519            |
| MCB 29 PALMS, CA                     | K67399, M67339 | 049099            |
| NSC SAN DIEGO, CA                    | N00244         | 047740            |
| NS SAN DIEGO, CA                     | N00245         | 047740            |
| NTC SAN DIEGO, CA                    | N00247         | 047740            |
| NWS SEAL BEACH ANNEX, CA             | N00396, D00396 | 047769            |
| NSGA SKAGGS ISLAND, CA               | N00849         | 048351            |
| FAWTC SAN DIEGO, CA                  | N00948         | 047740            |
| NAVAL DENTAL CLINIC LEMOORE          | N35723         | 044900            |
| NSA SAN FRANCISCO, CA                | N60028         | 047769            |
| MCAS EL TORO, CA                     | K60050, M60050 | 047888            |
| NSY LONG BEACH, CA                   | N60258, P60258 | 045085            |

| <u>INSTALLATION NAME</u>            | <u>DoDAAC</u>                     | <u>NCC NUMBER</u> |
|-------------------------------------|-----------------------------------|-------------------|
| NWC CHINA LAKE, RIDGECREST, CA      | N60530, D60530                    | 049035            |
| NWS SEAL BEACH, CA                  | N60701, D60701                    | 045085            |
| FCDSTC PACIFIC, SAN DIEGO, CA       | N61665                            | 047740            |
| FTC SAN DIEGO, CA                   | N61690                            | 047740            |
| PHIBASE CORONADO, SAN DIEGO, CA     | N62021                            | 047740            |
| PGSCOL MONTEREY, CA                 | N62271, D62271                    | 045795            |
| MSC PACIFIC, SAN FRANCISCO, CA      | N62383                            | 047769            |
| EFD SAN BRUNO, CA                   | N62474                            | 047769            |
| CBC PORT HUENEME, OXNARD, CA        | D62583, P62583, N62583            | 047022            |
| NBRL OAKLAND, CA                    | N62759                            | 046335            |
| SUPSHIP SAN DIEGO, CA               | N62791                            | 047769            |
| SUPSHIP SAN FRANCISCO, CA           | N62798                            | 047769            |
| ONR PASDENA, CA                     | N62887                            | 046719            |
| FNWC MONTEREY, CA                   | N63134                            | 045795            |
| NARU ALAMEDA, CA                    | N63139                            | 040061            |
| COMBTSYSTECHSCOLCOM MARE ISLAND, CA | N63290                            | 047414            |
| PWC SAN DIEGO, CA                   | N63387, B63387,<br>D63387, P63387 | 047740            |
| REDCOM SAN DIEGO                    | N68350                            | 047740            |
| REDCOM TREASURE IS                  | N68308                            | 040061            |
| NAVELEXSENGCEN, VALLEJO             | N63274                            | 047414            |
| NSWSES PORT HUENEME, OXNARD, CA     | N63394                            | 047022            |
| NSSF SAN DIEGO, CA                  | N63406                            | 047740            |
| NFMSAEG CORONA, CA                  | N64267                            | 042031            |
| NARF ALAMEDA, CA                    | N65885                            | 040061            |
| NARF NORTH ISLAND, SAN DIEGO, CA    | N65888                            | 047740            |
| NE SEC SAN DIEGO, CA                | N65584                            | 047740            |

| <u>INSTALLATION NAME</u>              | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|---------------------------------------|----------------|-------------------|
| NUC PT LOMA, SAN DIEGO, CA            | N66001         | 047740            |
| NDC SAN DIEGO, CA                     | N66022         | 047740            |
| NAVSPASUR SAN DIEGO, CA               | N66079         | 047740            |
| NH LEMOORE, CA                        | N66095         | 044900            |
| NSA MARE ISLAND, CA, VALLEJO          | N66890         | 047414            |
| MT VALLEJO, CA                        | N67030         | 047414            |
| NRMC SAN DIEGO, CA                    | N68056         | 047740            |
| RNMC LONG BEACH, CA                   | N68090         | 045085            |
| NRMC OAKLAND, CA                      | N68097, D68097 | 046335            |
| NAF EL CENTRO, CA                     | D60042, N60042 | 041048            |
| CEL PORT HEUNEME, OXNARD, CA          | N68305         | 047022            |
| NSA LONG BEACH, CA                    | N68311, D68311 | 045085            |
| PWC SAN FRANCISCO, CA                 | D68378, N68378 | 047769            |
| NCS SAN DIEGO, CA                     | N70240         | 047740            |
| NIROP SUNNYVALE, CA                   | N91285         | 045748            |
| NIROP POMONA, CA                      | N93055         | 047050            |
| NSC OAKLAND, CA                       | N00228         | 046335            |
| PRESIDIO OF SAN FRANCISCO             | W62PXB         | 047769            |
| MILL VALLEY AFS                       | AY9750         | 047414            |
| MT LAGUNA                             | FY9785         | 047470            |
| OAKLAND ARMY BASE HQ                  | W62PQP         | 046335            |
| WPNSTA CONCORD, CA                    | P60036         | 045378            |
| DEFENSE DEPOT TRACY                   | SB3200         | 048999            |
| SACRAMENTO ARMY DEPOT, CA             | W62G2Q         | 047633            |
| SHARPE ARMY DEPOT, STOCKTON, CA       | W62G2S         | 048558            |
| SIERRA ARMY DEPOT, HERLONG, CA        | W62G2W         | 048218            |
| CALIFORNIA ARNG, SAN LUIS OBISPO, CAL | W62M49         | 047851            |

| <u>INSTALLATION NAME</u>                   | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|--|------------------------|-------------------|
| USA ENGINEER DISTRICT SACRAMENTO, CA       | W62N6M                 | 047633            |
| AAP HAWTHORNE, NEVADA                      | W65W9N                 | 263515            |
| NAS FALLON, NEVADA                         | D60495, N60495         | 262780            |
| NELLIS AFB NV, LAS VEGAS                   | FP4852                 | 264436            |
| NEVADA ANG                                 | FP6281                 | 266779            |
| NEVADA ARNG, CARSON CITY                   | W65KUC                 | 261485            |
| MOUNTAIN HOME AFB, MOUNTAIN HOME,<br>IDAHO | FP4897                 | 106174            |
| IDAHO ANG                                  | FP6112                 | 101022            |
| IDAHO ARNG, BOISE                          | W63KQW                 | 101022            |
| USA ENGINEER DISTRICT PORTLAND,<br>OREGON  | W66QKZ                 | 356751            |
| NAVFAC COOS HEAD, OREGON                   | D57055, N57055         | 356073            |
| KINGSLEY FIELD, KLAMATH FALLS,<br>OREGON   | FP2560                 | 354506            |
| OREGON ANG                                 | FP6371                 | 356751            |
| MT HEBO AFS OR, HEBO, OREGON               | FY8981                 | 351682            |
| NORTH BEND AFS OREGON                      | FY9728                 | 356073            |
| OREGON ARNG                                | W66MRS                 | 356751            |
| USA ENGINEER DISTRICT SEATTLE, WA          | A68122                 | 457473            |
| NAVTORPSTA KEYPORT, WA                     | N00253                 | 450872            |
| NSA SEATTLE, WA                            | D00255, N00255, P00255 | 457473            |
| NAS WHIDBEY ISLAND, WA                     | D00620, N00620         | 459165            |
| NAVFAC PACIFIC BEACH, WA                   | D57056, N57056         | 453807            |
| FAIRCHILD AFB WA, AIRWAY HEIGHTS, WA       | FB4620                 | 457938            |
| McCHORD AFB WA, TACOMA, WA                 | FP4479                 | 458286            |
| 25TH AIR DIV (McCHORD AFB WA)              | FY5797                 | 458286            |

| <u>INSTALLATION NAME</u>              | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|---------------------------------------|------------------------|-------------------|
| MAKAH AFS WA, NEAH BAY, WA            | FY9755                 | 456858            |
| BLAINE AFS WA, BLAINE, WA             | FY9757                 | 450729            |
| NSY BREMERTON, WA                     | P00251, N00251, D00251 | 450872            |
| NSC PUGET SOUND, BREMERTON, WA        | N00406                 | 450872            |
| NARU WHIDBEY ISLAND, WA               | N00621                 | 459165            |
| NISMF PUGET SOUND, BREMERTON, WA      | N55639                 | 450872            |
| NRMC BREMERTON, WA                    | N00254, N68095         | 450872            |
| SWFPAC KEYPORT, WA                    | N63402                 | 450872            |
| DIST ENGR WALLA WALLA                 | A68KAM                 | 457938            |
| REDCOM, SEATTLE, WA                   | N68328, P68328         | 457473            |
| NFD MANCHESTER, WA                    | N65765                 | 457473            |
| NH WHIDBEY ISLAND, WA                 | N66097                 | 459165            |
| NRS JIM CREEK                         | N70273                 | 457507            |
| WASHINGTON, ARNG TACOMA               | W68N9X                 | 458286            |
| DEWLINE SYSTEM                        | EY2700                 | 7*                |
| CAPE LISBURNE AFS AK, POINT HOPE, AK  | FP5010                 | 501312            |
| CAPE NEWENHAM AFS AK PLATINUM, AK     | FP5011                 | 501314            |
| KOTXEBUE AFS AK, KOTZEBUE, AK         | FP5012                 | 505076            |
| INDIAN MT AFS AK, HUGHES AK           | FP5013                 | 503910            |
| CAPE ROMANZOF AFS, AK, HOOPER BAY, AK | FP5014                 | 501318            |
| TATLINA AFS AK, McGRATH, AK           | FP5015                 | 505769            |
| FT YUKON AFS AK, FT YUKON, AF         | FP5016                 | 501977            |
| TIN CITY AFS AK, WALES, AK            | FP5017                 | 509249            |
| CAMPION AFS AK, GALENA, AK            | FP5019                 | 503215            |
| ELEMENFORF AFB AK, ANCHORAGE, AK      | FP5000                 | 502820            |
| EILSON AFB AK, NORTH POLE, AK         | FP5004                 | 7*                |

| <u>INSTALLATION NAME</u>            | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|-------------------------------------|------------------------|-------------------|
| KING SALMON ARPT AK, NAKNEK, AK     | FP5007                 | 504766            |
| GALENA ARPT AK                      | FP5060                 | 503215            |
| ALASKA ANG                          | FP6520                 | 502820            |
| MURPHY DOME AFS ALASKA, COLLEGE, AK | FY8785                 | 502112            |
| SPARREVOHN AFS ALASKA, ILIAMNA, AK  | FP5020                 | 503905            |
| NARL BARROW, ALASKA                 | N65226                 | 500546            |
| ALASKA ARNG ANCHORAGE               | WC1JTW                 | 500280            |
| COLD BAY AFS AK, COLD BAY, AK       | FP5018                 | 502102            |
| SHEMYA AFB AK, ATKA, AK             | FP5040                 | 508419            |
| NSGA ADAK, AK                       | N63886                 | 500026            |
| NS ADAK, AK                         | D60462, N60462         | 500026            |
| NS GUANTANAMO CUBA                  | D60514, N61564         | 783670*           |
| NH GUANTANAMO CUBA                  | N61564                 | 783670*           |
| NDC GTMO GUANTANAMO CUBA            | N62333                 | 783670*           |
| NSGA GTMO GUANTANAMO CUBA           | N63906                 | 783670*           |
| DEPSCOL GTMO GUANTANAMO CUBA        | N65983                 | 783670*           |
| NAVFAC ANTIGUA                      | D67049, N67049         | *                 |
| AFETR AARB 91 ANTIGUA               | EY815E                 | *                 |
| NS ROOSEVELT ROADS, PUERTO RICO     | B00389, D00389, N00389 | 785350*           |
| NCS PONCE, PUERTO RICO              | D00743, N00743         | 785260*           |
| NSGA SABANA SECA, PUERTO RICO       | N66754, D66754         | 785201*           |
| NH ROOSEVELT ROADS, PUERTO RICO     | N65428                 | 785350*           |
| PUERTO ARNG, PUERTO RICO            | WF3SCY                 | 785260*           |
| PUERTO RICO ANG                     | FP6540                 | 785260*           |
| VIRGIN ISLAND ARNG VI               | WF3APY                 | *                 |
| AFETR AAFB 7 GRAND TURK             | EY815B                 | *                 |
| AFETR AAFB 3 GRAND BAHAMA           | EY815C                 | 780631*           |

\* NCC data are not available for this installation. WMO number is listed where available.

| <u>INSTALLATION NAME</u>                   | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|--|----------------|-------------------|
| NAS BERMUDA                                | D62481, N62481 | 780160*           |
| NAVFAC BERMUDA                             | N57038         | 780160*           |
| NUSC BERMUDA                               | N66721         | 780160*           |
| NS KEFLAVIK, ICELAND                       | N63032, D63032 | 740180*           |
| NCS KEFLAVIK, ICELAND                      | N63143         | 740180*           |
| DEPSCOL KEFLAVIK, ICELAND                  | N65981         | 740180*           |
| LAJES FIELD, AZORES                        | FP4486         | 785090*           |
| AFETR AAFB 12 ASCENSION                    | EY815A         | *                 |
| NAVFAC ARGENTIA, NEWFOUNDLAND              | D57075, N57075 | *                 |
| SONDRESTROM AB,<br>HOLSTEINBERG, GREENLAND | FP2547         | 742310*           |
| THULE AIR BASE THULE, GREENLAND            | FP2573         | 742020*           |
| SPANDAHLEM AB GERMANY                      | FB5621         | 706070*           |
| TEMPELHOF CENTRAL AIRPORT,<br>W BERLIN     | FB5622         | 703840*           |
| ZWEIBRUCKEN AB GERMANY                     | FP5529         | 707140*           |
| BITBURG AB GERMANY                         | FP5606         | 706100*           |
| RAMSTEIN AFB LANDSTUHL, GERMANY            | FP5612         | 706140*           |
| RHEIN MAIN AB FRANKFURT, GERMANY           | FP4420         | 706370*           |
| HAHN AIR BASE, LAUTZENHAUSEN, GERMANY      | FP5620         | 706160*           |
| SEMBACH AB GERMANY                         | FP5623         | 707120*           |
| SOESTERBERG AB, NL                         | FP5688         | *                 |
| 7TH ARMY TNG CMD GRAFENWOHR                | W1EKAA         | *                 |
| USCOB USAB BERLIN, GE                      | WK4F15         | *                 |
| 26TH SPT CMB, HEIDELBERG, GERMANY          | WK4SV4         | 706140*           |
| VII CORPS STUTTGART GE                     | WK4E62         | 107380*           |
| V CORPS STUTTGART GE                       | W32MAB         | 107380*           |

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| <u>INSTALLATION NAME</u>                  | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|---|------------------------|-------------------|
| NSGA EDZELL, SCOTLAND                     | D63073, N63073         | *                 |
| NRS THURSO, SCOTLAND                      | D63395                 | *                 |
| RAF UPPER HEYFORD, UPPER HEYFORD, UK      | FB5537                 | 036551*           |
| WETHERSFIELD AB, WETHERSFIELD, UK         | FB5643                 | 035771*           |
| RAF SCULTHORPE, FAKENHAM, UK              | FG5553                 | 035831*           |
| RAF FAIRFORD                              | FP5560                 | *                 |
| RAF CHICKSANDS, SHEFFORD, UK              | FG5650                 | 035831*           |
| RAF MILDENHALL, UK                        | FP5518                 | 035771*           |
| RAF GREENHAM COMMON, NEWBURY, UK          | FP5537                 | 036551*           |
| RAF LAKENHEATH ENG                        | FB5587                 | 035831*           |
| RAF ALCONBURY, UK                         | FP5643                 | 035621*           |
| BENTWATERS-WOODBRIDGE, WOODBRIDGE, UK     | FP5644                 | 035961*           |
| RAF WEST RUISLIP, UK                      | FY9114                 | *                 |
| NAVACT UK, LONDON, ENGLAND                | N62585                 | 037760*           |
| NCU THURSO                                | N63395                 | *                 |
| NAVACTSDET HOLY LOCH, SCOTLAND            | N65995                 | *                 |
| NAVFAC BRAWDY WALES                       | N68165                 | *                 |
| NS ROTA SPAIN                             | B62863, D62863, N62863 | 084490*           |
| ZARAGOZA AB SPAIN                         | FP5571                 | 081605*           |
| MORON AB SPAIN                            | FP5575                 | 083970*           |
| TORREJON AFB, TORREJON DE ARDOZ,<br>SPAIN | FX5585                 | 082270*           |
| ST MAWGAN, UK                             | N64981                 | *                 |
| NCS ROTA SPAIN                            | N63182                 | 084490*           |
| NSA NAPLES ITALY                          | D62588, N62588         | 162890*           |
| SAN VITO AS ITALY                         | FG5517                 | *                 |

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| <u>INSTALLATION NAME</u>                     | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|--|----------------|-------------------|
| AVIANO AB, PORDENONE, ITALY                  | FP5682         | 160360*           |
| NRMC NAPLES ITALY                            | N66096         | 162890*           |
| NCS NAPLES ITALY                             | N70294         | 162890*           |
| SETAF, VICENZA, ITALY                        | WK9G2D         | *                 |
| NSO LA MADDALENA, SARDINIA                   | D32960, N32960 | *                 |
| NAF SIGONELLA SICILY                         | D62995, N62995 | 164594*           |
| NCS SIGONELLA SICILY                         | N32525         | 164594*           |
| HELLENIKON APRT, ATHENAI, GREECE             | FB5687         | 167160*           |
| IRAKLION AS CRETE, GOURNES, GREECE           | FG5699         | 167540*           |
| NAVDET SOUDA BAY, CRETE                      | N66691         | 167464*           |
| NCS NEA MARKI GREECE                         | N70295         | *                 |
| DIYARBAKIR AB TURKEY, DIYARBAKIR,<br>TURKEY  | FP5696         | 172800*           |
| IZMIR  | FB5531         | 172180*           |
| KARAMURSEL CDI                               | FB5695         | *                 |
| INCIRLIK AB TURKEY, INCIRLIK, TURKEY         | FP5685         | *                 |
| ANKARA AS TU                                 | FP5693         | *                 |
| PWC SUBIC PHILIPPINES                        | D62808, N62808 | 984260*           |
| JOHN HAY AB PHILIPPINES, BAGUIO, PHIL        | FB5250         | 983270*           |
| WALLACE AS PHILIPPINES, SAN FERNANDO<br>PHIL | FG5250         | 983270*           |
| CLARK AB, ANGELES, PHIL                      | FP5250         | 983270*           |
| NSD SUBIC PHILIPPINES                        | N00651         | 984260*           |
| NCS PHILIPPINES                              | N00927         | *                 |
| NS SUBIC BAY PHILIPPINES                     | N61552         | 984260*           |
| NSRF SUBIC BAY PHILIPPINES                   | N62807         | 984260*           |
| NAVMAG SUBIC BAY PHILIPPINES                 | N62807         | 984260*           |

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| <u>INSTALLATION NAME</u>                    | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|---|----------------|-------------------|
| NAS CUBI POINT PHILIPPINES                  | N62876         | 984260*           |
| NH SUBIC BAY PHILIPPINES                    | N65491         | 984260*           |
| CHING CHUAN KANG AB,<br>PU TZU CHIEN TAIWAN | FP5266         | *                 |
| NCS HAROLD E HOLT, AUSTRALIA -<br>EXMOUTH   | D63427, N63427 | *                 |
| PWC GUAM AGANA GUAM                         | D62395, N62395 | 912120*           |
| ANDERSEN AFB AGANA GUAM                     | FP4624         | 912180*           |
| NAVMAG GUAM AGANA                           | N60872         | 912120*           |
| NSD GUAM AGANA                              | N61119         | 912120*           |
| NAS GUAM AGANA                              | N61577         | 912120*           |
| NS GUAM AGANA                               | N61755         | 912120*           |
| NDC GUAM AGANA                              | N62328         | 912120*           |
| NSRF GUAM AGANA                             | N62586, P62586 | 912120*           |
| NAVFAC GUAM AGANA                           | N66125         | 912120*           |
| NRMC GUAM AGANA                             | N68096         | 912120*           |
| NAVSTA GUAM AGANA                           | P61755         | 912120*           |
| CAMP ZAMA                                   | AT5F01         | 476800*           |
| NAF ATSUGI JAPAN                            | D62507, N62507 | 476790*           |
| PWC YOKOSUKA JAPAN                          | D65115, N65115 | 476060*           |
| NCS YOKOSUKA JAPAN                          | D70278, N70278 | 476960*           |
| MISAWA AB JAPAN                             | FB5205         | 475800*           |
| YOKOTA AIR BASE FUSSA &<br>MACHI JAPAN      | FP5209         | 476420*           |
| COMFLEACT YOKOSUKA JAPAN                    | N61581, P61581 | 476960*           |
| NSRF YOKOSUKA JAPAN                         | N62758         | 476960*           |
| MCAS IWAKUNI JAPAN                          | K62613, M62613 | 477640*           |
| NSD YOKOSUKA JAPAN                          | N62649         | 476960*           |
| NAVJNTSERVACT SH TOKYO                      | N43666         |                   |

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| <u>INSTALLATION NAME</u>         | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|----------------------------------|------------------------|-------------------|
| USAGO MAKIMINATO JAPAN           | WT6KKU                 | *                 |
| NOF SASEBO JAPAN                 | N62735, P62735         | 478120*           |
| NRMC YOKOSUKA JAPAN              | N68292                 | 476960*           |
| KWANG JU AB, KWANG JU KOREA      | FB5284                 | 471580*           |
| TAEGU AB KOREA                   | FB5294                 | 471420*           |
| KUNSAN AB KOREA                  | FP5284                 | 471440*           |
| OSAN AB KOREA, SONG TAN KO       | FP5294                 | 471220*           |
| EIGHT ARMY KOREA SEOUL           | WT4KEK                 | 471110*           |
| KADENA AB OKINAWA RYUKYU IS      | FP5270                 | 479310*           |
| NRNC OKINAWA                     | N68470                 | 479310*           |
| NSGA HANZA OKINAWA               | N70284                 | 479310*           |
| JOHNSTON ATOLL HONOLULU, HAWAII  | HD3121                 | 511919            |
| NS MIDWAY ISLAND                 | D62494, N62494         | 910660            |
| NAVFAC MIDWAY ISLAND             | N66126                 | 910660            |
| HAWAII ARNG HONOLULU             | WX3JSN                 | 511919            |
| PMRF BARKING SANDS, HAWAII       | D0534A, N0534A         | 911620            |
| PWC PEARL HARBOR HAWAII          | D62755, N62755, P62755 | 511919            |
| NAVMAG LUALUALEI HAWAII          | N68297                 |                   |
| NB PEARL                         | N61449                 | 511919            |
| HICKAM AFB HONOLULU, HAWAII      | FP5260                 | 511919            |
| MCAS KANEOHE BAY HAWAII          | K00318, M00318         | 513113            |
| CAMP H M SMITH, HONOLULU, HAWAII | K67385, M67385         | 511919            |
| CINCPAC, HONOLULU, HAWAII        | N00038                 | 511919            |
| NSY PEARL HARBOR, HAWAII         | N00311, P00311         | 511919            |
| SUBASE PEARL HARBOR, HAWAII      | N00314                 | 511919            |

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| <u>INSTALLATION NAME</u>     | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|------------------------------|----------------|-------------------|
| NAS BARBERS POINT HAWAII     | N00334         | 510204            |
| NSC PEARL HARBOR, HAWAII     | N00604         | 511919            |
| USASCH FT SHAFTER, HI        | W80N69         | 511919            |
| NISF PEARL HARBOR, HAWAII    | N57026         | 511919            |
| NDC PEARL HARBOR, HAWAII     | N62313         | 511919            |
| FWC PEARL HARBOR, HAWAII     | N62362         | 511919            |
| NS PEARL HARBOR, HAWAII      | N62813, P62813 | 511919            |
| NSTC PEARL HARBOR, HAWAII    | N63154         | 511919            |
| FICPAC PEARL HARBOR, HAWAII  | N63186         | 511919            |
| NAVFAC BARBERS POINT, HAWAII | N66150         | 510204            |
| NRMC PEARL HARBOR, HAWAII    | N68098         | 511919            |
| NCF DIEGO GARCIA             | N68539         | 719670*           |
| NSA CANAL ZONE PANAMA        | D66833, N66833 | 788060*           |
| HOWARD AFB BALBOA, PC ZONE   | FP4810         | 788060*           |
| NCS BALBOA PANAMA            | N00867         | 788060*           |
| NSGA GALETA IS PANAMA        | N70283         | 788060*           |
| NCSO BAHRAIN                 | B63005         | 704270*           |
| ASU BAHRAIN                  | N63005         | 704270*           |
| KINGS BAY MTMC               | A33610         | 097847            |
| CAMP DRUM                    | A16150         | 307167            |
| CAMP PICKETT                 | W26DKK         | 447201            |
| CAMP SD BUTLER               | M67400         | *                 |
| CLEAR AFS                    | EY7676         | 500546            |
| CNAVRES                      | N00072         | 166660            |
| CNET SER                     | N00062         | 086997            |

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| <u>INSTALLATION NAME</u> | <u>DoDAAC</u>          | <u>NCC NUMBER</u> |
|--------------------------|------------------------|-------------------|
| COMNAVFORKOREA           | D32778, N32778, P32778 | *                 |
| CONSOLIDATED CLOSED      | WCB999, FP9999         | *                 |
| ESCANABA                 | UY7020                 | 204415            |
| FITZSIMONS ARMY MEDICAL  | W51MXS                 | 052220            |
| FORT AP HILL             | W26DJS                 | 443192            |
| FORT BENJAMIN HARRISON   | W53C46                 | 124259            |
| FOUR MARDIV              | M68479                 | 166660            |
| IPAC                     | N68389                 | 511919            |
| LYNN HAVEN               | UY7013                 | 086842            |
| MOT SUNNY POINT          | W36VAA                 | 311730            |
| MUKILTEO                 | UY7029                 | 452675            |
| NAVCAMS EAST PAC         | N00950                 | 511919            |
| NAVCAMS LANT             | D70272, N70272         | 446139            |
| NAVCAMS WEST PAC         | N70243                 | *                 |
| NAVOCEAN PROFAC          | N68593                 | 446139            |
| NAVRADTRANSFAC DRIVER    | N0552A                 | 446139            |
| NEWINGTON                | UY7004                 | 271683            |
| NIROP McGREGOR           | N95918                 | 410428            |
| NORWALK                  | UY7030                 | 045114            |
| NRMC DISPENSARY          | N32528                 | 047022            |
| NRS SUGAR GROVE          | D70310, N70310         | 461570            |
| NSGA NORTHWEST           | N63891                 | 446139            |
| NSRDC BAYVIEW            | N62182                 | 457938            |
| NWIRP BLOOMFIELD         | N92782                 | 063456            |
| NWIRP BRISTOL            | N94307                 | 375215            |
| NWIRP SOUTH BRISTOL      | N94671                 | 170934            |

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| <u>INSTALLATION NAME</u> | <u>DoDAAC</u>  | <u>NCC NUMBER</u> |
|--------------------------|----------------|-------------------|
| OZOL                     | UY7031         | 045378            |
| RECCOM SCOTIA            | N68357         | 300042            |
| REDCOM CHASN             | N68356         | 381544            |
| REDCOM RAVENNA           | N68329         | 339406            |
| SATCOMDET NORTHWEST      | N42063         | 446139            |
| SER                      | D00025, N00070 | 511919            |
| SER BUMED                | N00018         | 448906            |
| SER LAB/CNM              | N00078         | 448906            |
| SER LANTFLT              | N00060         | 446139            |
| SER NAVCOMM              | N00063         | 448906            |
| SER NAVELEC              | N00039         | 448906            |
| SER NAVEUR               | N00061         | *                 |
| SER NAVSEA               | N00024         | 448906            |
| SER NAVSEC               | N00069         | 448906            |
| STRATFORD ENGINE PLANT   | C91547         | 060806            |
| UMATILLA DEPOT           | W66G2Z         | 457938            |
| VERONA                   | UY7009         | 308383            |
| 21ST SUPCOM              | UA2022         | *                 |
| FT BLISS                 | W45NSU         | 299686            |
| FT BRAGG                 | W36P07         | 316891            |
| FT BUCHANAN              | WF3HBO         | *                 |
| FT CARSON                | W51HU8         | 051778            |
| FT HOOD                  | W45NQ7         | 412242            |
| FT JACKSON               | W37N01         | 381939            |
| FT LEE                   | W26ADX         | 447201            |
| FT LEWIS                 | W12KAA         | 458286            |

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| <u>INSTALLATION NAME</u> | <u>DoDAAC</u> | <u>NCC NUMBER</u> |
|--------------------------|---------------|-------------------|
| FT McCLELLAN             | W31BJ0        | 010272            |
| FT McPHERSON             | W33NYU        | 090451            |
| FT MONROE                | W26DHV        | 446139            |
| FT ORD                   | W62PN4        | 045795            |
| FT POLK                  | W42CW1        | 160098            |
| FT RICHARDSON            | WC1J4Q        | 500280            |
| FT RILEY                 | W55CVC        | 148167            |
| FT RUCKER                | W31NWR        | 013075            |
| FT STEWART               | W33NYN        | 093538            |
| FT AMADOR COMUSRSO       | AF6155        | *                 |

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| 19. KEY WORDS (Continue on reverse side if necessary and identify by block number)<br>Information System, Defense, Energy, Mobility Fuels, Utility Energy,<br>System Design, DoD Installations, Management Systems  |  |   |
| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number)<br>The Defense Energy Information System (DEIS) is a worldwide, automated, energy management information system. It provides data on petroleum products used as mobility fuels by the military departments as well as most energy sources used for utility services at DoD installations.<br><br>DEIS consists of two related information systems. DEIS I reports the disposition and consumption of petroleum products, notably aviation |  |   |

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20. (continued)

gasoline, jet fuels, motor gasoline, distillate and residual oils within DoD. DEIS II reports the consumption of utility energy, such as electricity, natural gas, purchased steam/hot water, fuel oil and coal. It reports the consumption and generation of energy from renewable sources.

This document presents the System Specification for the enhanced DEIS (DEIS-80). As specified, DEIS-80 improves the utility of the existing system by including additional data, supporting management queries of the DEIS-80 data bases on-line, and providing the capability for automated data analysis.

Since the publication of the DEIS-80 specifications in August 1980, several design features have been identified that required clarification and modification. The design System Specification will continue to serve as the guide for the computer programming of DEIS-80. It adheres to the requirement for system specification in the "Automated Data System Documentation Standards."

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